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L1 STRUCTURE UPLOADED

L2 26 S L1

L3 515 S L1 FULL

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L4 231 S L3

L5 55 S L4 AND PY<2003

=> s l4 and py<2005

25089442 PY<2005

L6 100 L4 AND PY<2005

=> d 1-100 bib abs hitstr

L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2008:620200 CAPLUS
DN 148:579583

TI Systems and methods for high-resolution in vivo imaging of biochemical activity in a living organism
IN Hancu, Ileana; Amaratunga, Mohan Mark; Wicht, Denyce Kramer; Dhawale, Paritosh; Ishaque, Nadeem; Syud, Faisal Ahmed; Johnson, Bruce Fletcher; Williams, Amy Casey

FA General Electric Company, USA
SO U.S. Pat. Appl. Publ., 27pp., Cont.-in-part of U.S. Ser. No. 252,311.
CODEN: USXXCO

DT Patent
LA English

FAN CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20080118439	A1	20080522	US 2007-875245	20071019
US 20040067903	A1	20040825	US 2002-252311	20020923 <--
US 7303741	B2	20071204		
PRAI US 2002-252311	A2	20020923		

AB This invention relates to multifunctional detection agents useful for providing high-resolution, in vivo imaging of biochem. activity in a living organism. Methods of using these multifunctional detection agents may comprise administering them into a living organism, and then estimating the localization of the detection agent using one modality (i.e., MRI), while concurrently estimating the level of biol. activity using a second modality (i.e., optical imaging). One of the multifunctional detection agents comprises a magnetic resonance component and an optical imaging component. The magnetic resonance component comprises a contrast agent that is always activated or "on". The optical imaging component comprises a plurality of activatable contrast agents or dyes, at least two of which are different from one another, wherein at least one of the activatable contrast agents can be activated or turned "on" only in the presence of a particular event.

IT 675150-06-8F 675150-08-0F
RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(high-resolution in vivo imaging of biochem. activity in living organism)
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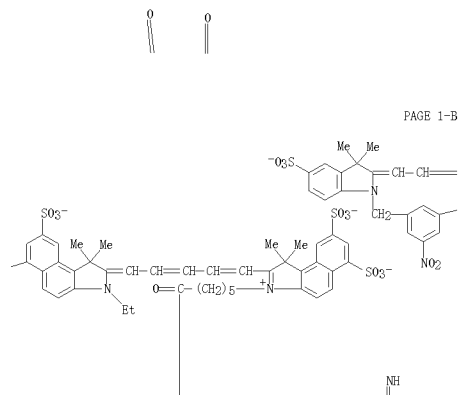
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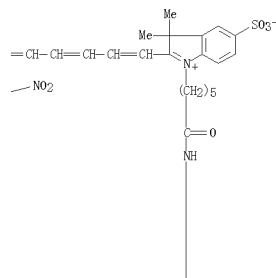
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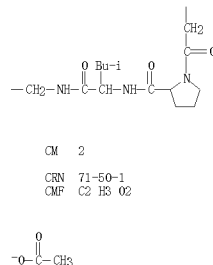
L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2

CRN 71-50-1

CMF C2 H3 02



RN 675150-08-0 CAPLUS
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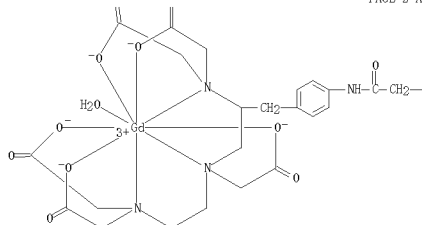
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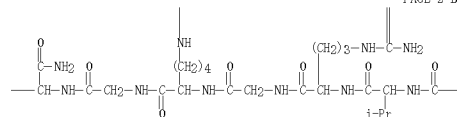
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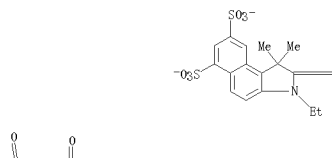


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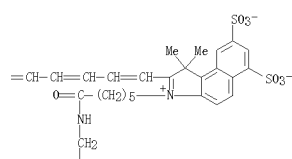


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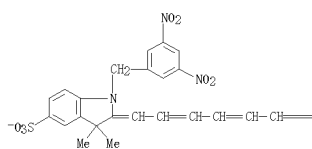


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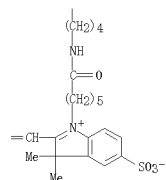


L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2

CRN 14477-72-6

CMF C2 F3 02

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1027028-76-7DP, resin bound 1027028-79-0P
1027028-82-5P 1027028-84-7P 1027028-88-1P
1027028-96-1DP, resin bound 1027028-97-2P
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(Reactant or reagent)

(high-resolution in vivo imaging of biochem. activity in living organism)

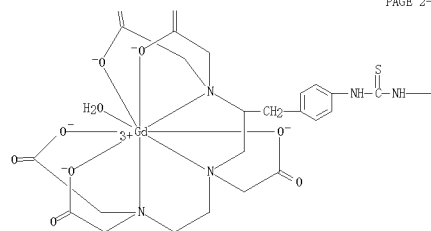
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CN INDEX NAME NOT YET ASSIGNED

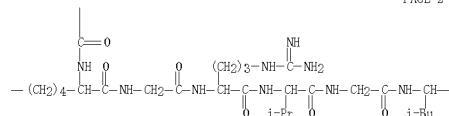
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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

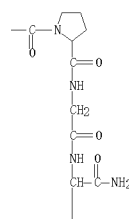
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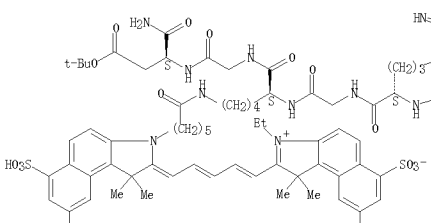


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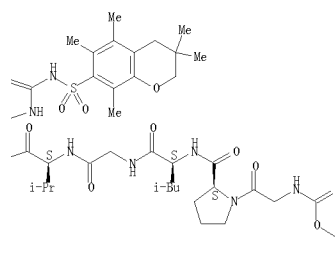


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PAGE 1-B

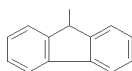
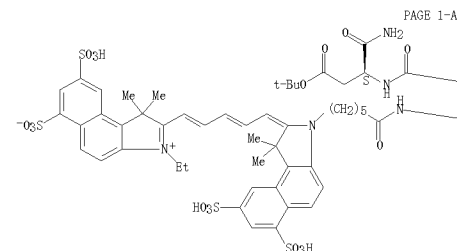


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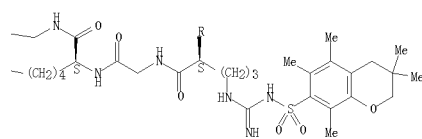
L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 2-B

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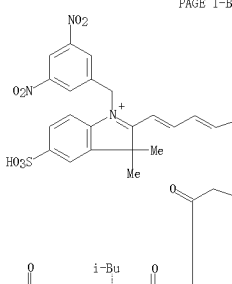
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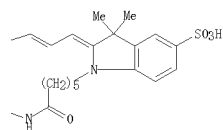


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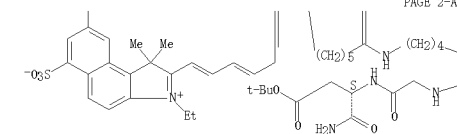
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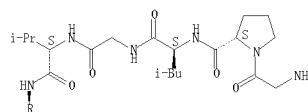


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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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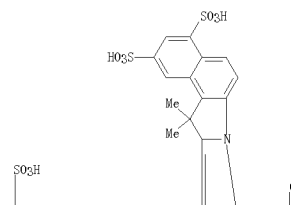
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CN INDEX NAME NOT YET ASSIGNED

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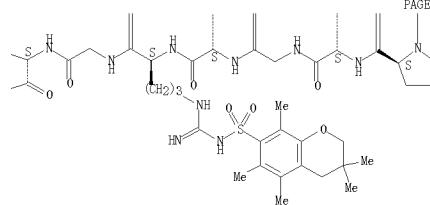
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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2

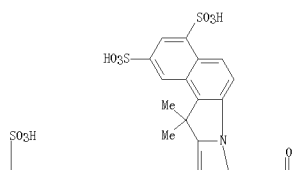
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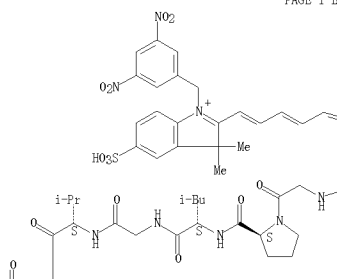
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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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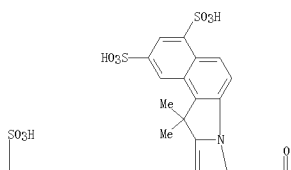
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CN INDEX NAME NOT YET ASSIGNED

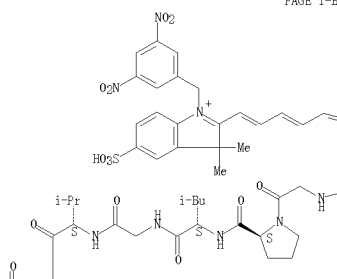
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Double bond geometry unknown.

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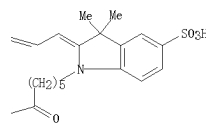


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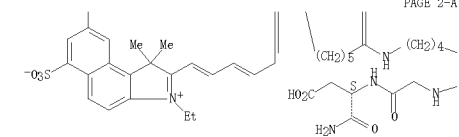


L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

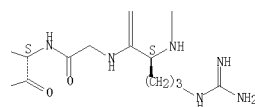
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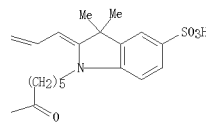


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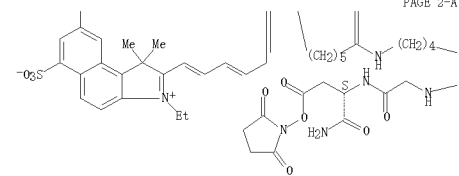
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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

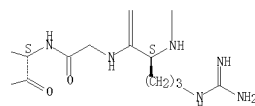
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CMF C2 F3 O2

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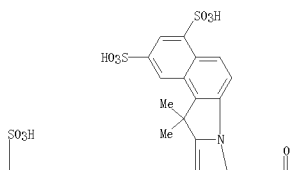
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 CN INDEX NAME NOT YET ASSIGNED

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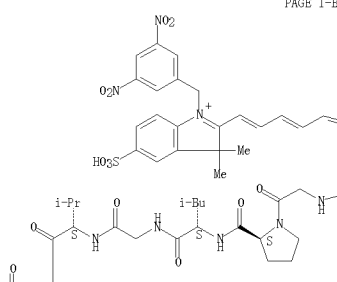
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 Double bond geometry unknown.

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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
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CRN 14477-72-6
 CMF C2 F3 02



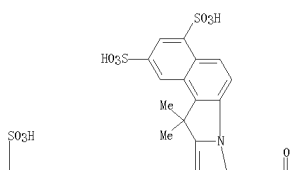
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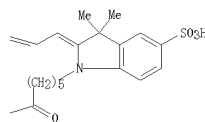
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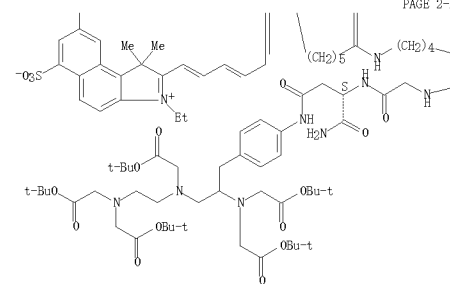


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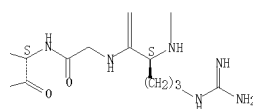
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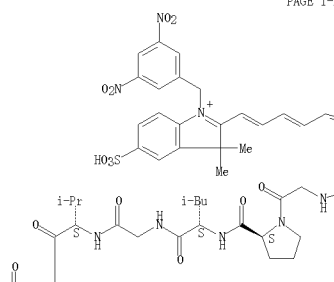


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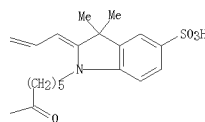


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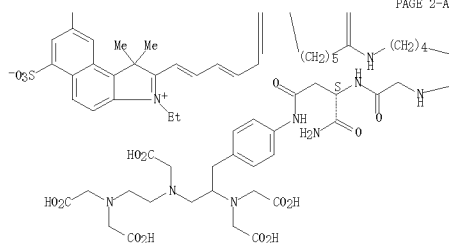


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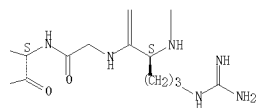


L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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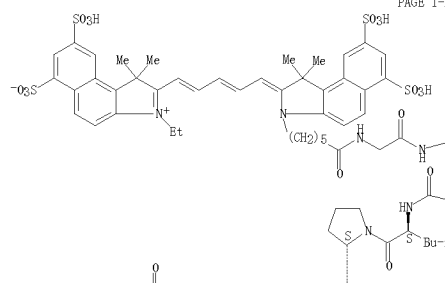


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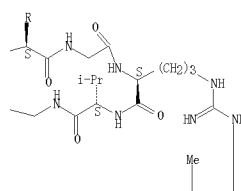
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Double bond geometry unknown.

L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

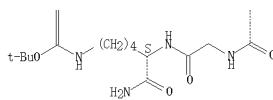


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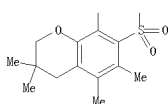


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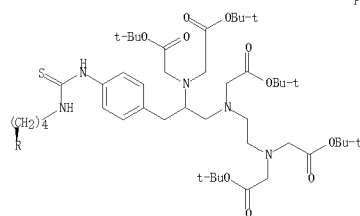
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PAGE 3-A

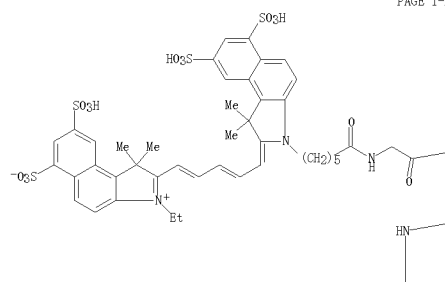


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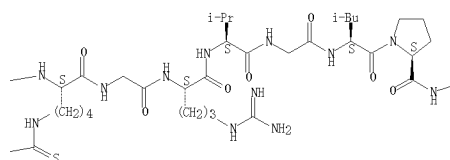
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CN INDEX NAME NOT YET ASSIGNEDAbsolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

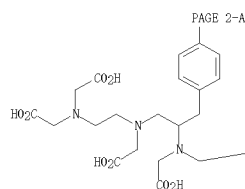
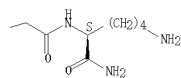
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L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
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● 3 K

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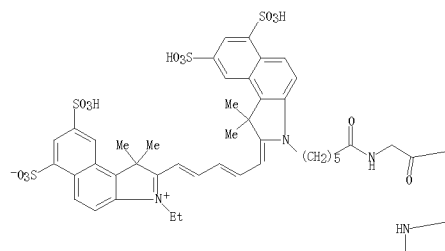


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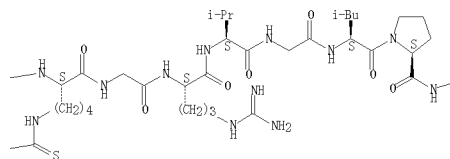
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Absolute stereochemistry.
 Double bond geometry unknown.

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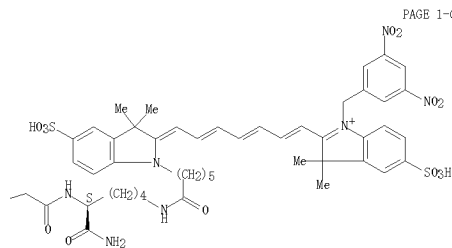


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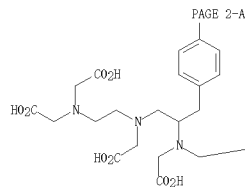


L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2
 CRN 14477-72-6
 CMF C2 F3 O2

L6 ANSWER 1 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L6 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
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 DN 147:143621
 TI Nucleotides with cleavable labels and removable 3'-hydroxyl blocking groups for DNA sequencing
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 DT Patent
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FRAI US 2002-227131 A2 20020823
 GB 2002-30037 A 20021223
 GB 2003-3924 A 20030220
 WO 2003-GB3686 W 20030822
 GB 2001-22012 A 20011204

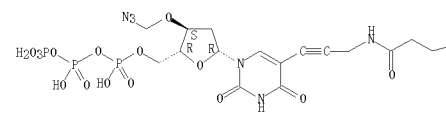
AB The invention provides modified nucleotide or nucleoside mol. comprising a purine or pyrimidine base and a ribose or deoxyribose sugar moiety having a removable 3'-OH blocking group covalently attached thereto, such that the 3' carbon atom has attached a group of the structure OZ (Z = C(R')2OR'', C(R')2N(R'')2, C(R')2NHR'', C(R')2SR'', C(R')2P; R' is or is part of a removable protecting group; R'' = H, (substituted)alkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, heterocyclic, acyl, cyano, alkoxy, aryloxy, heteroaryloxy, amido group, detectable label attached through a linking group; or (R')2 represents an alkylidene group of formula =C(R'')2 and R'' = H, halo, alkyl). The mol. may be reacted to yield an intermediate in which each R' is exchanged for H or, where Z = C(R')2P, the P is exchanged for OH, SH or NH2, preferably OH, which intermediate dissolves under aqueous conditions to afford a mol. with a free 3'-OH, with the proviso that where Z is C(R')2SR'', both R' are not H. Thus, pyrimidine nucleoside triphosphates with a fluorophore attached to the 5-position, and 7-deaza-purine nucleoside triphosphates with a fluorophore attached to the 7-position, via a disulfide bond-containing linker were prepared with 3'-O-allyl blocking groups. These NTP derivs. were successfully incorporated into a primer in an enzymic sequencing reaction. The 3'-O-allyl blocking groups were removed with a Pd complex of tris(3-sulfophenyl)phosphine.

IT 666847-61-6P 666847-82-1P 666847-95-6P
 666848-08-4P 666848-41-5P
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (nucleotides with cleavable labels and removable 3'-hydroxyl blocking

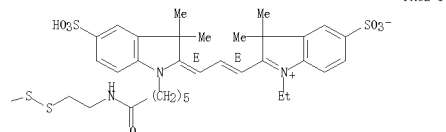
L6 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 groups for DNA sequencing)
 RN 666847-61-6 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[[2-[[[3-[3-[1-[3-O-(azidomethyl)-2-deoxy-5-O-[hydroxy[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propyn-1-yl]amino]-3-oxopropyl]dithio]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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PAGE 1-B

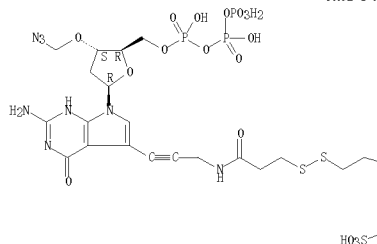


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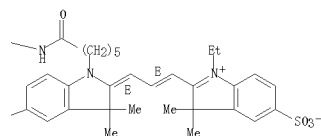
Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

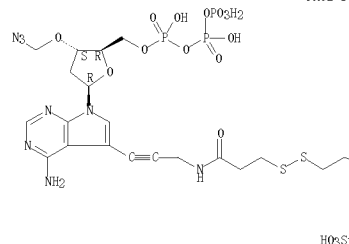


RN 666847-95-6 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[[2-[[[3-[3-[1-[3-O-(azidomethyl)-2-deoxy-5-O-[hydroxy[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-3-oxopropyl]dithio]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

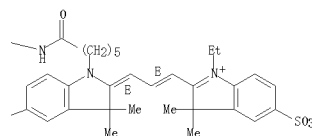
Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

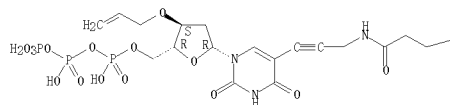


RN 666848-08-4 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[[2-[[[3-[3-[1-[2-deoxy-5-O-[hydroxy[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-3-O-2-propen-1-yl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propyn-1-yl]amino]-3-oxopropyl]dithio]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

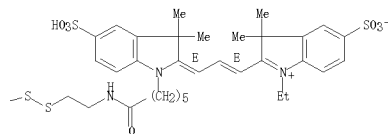
Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

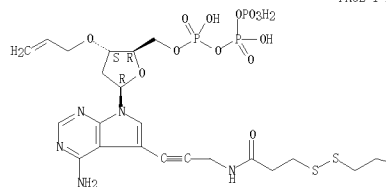


RN 666848-41-5 CAPLUS
 CN 3H-Indolium, 2-[[1E,3E]-3-[1-[6-[[2-[[3-[[3-[4-amino-7-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-3-O-2-propen-1-yl]-D-erythro-pentofuranosyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propen-1-yl]amino]-3-oxopropyl]diethylethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

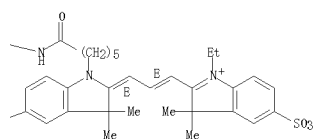
L6 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



HO3S-

PAGE 1-B



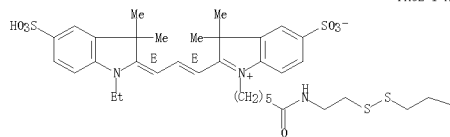
IT 666847-60-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (nucleotides with cleavable labels and removable 3'-hydroxyl blocking groups for DNA sequencing)

RN 666847-60-5 CAPLUS
 CN 3H-Indolium, 1-[6-[[2-[[2-carboxyethyl]dithiolethyl]amino]-6-oxohexyl]-2-[[1E,3E]-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propen-1-yl]-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Double bond geometry as shown.

L6 ANSWER 2 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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PAGE 1-B

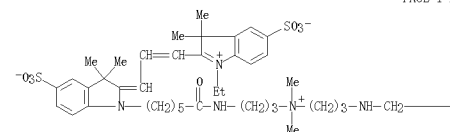
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L6 ANSWER 3 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:41326 CAPLUS
 DN 146:136356
 TI Micellar systems for modification of nucleic acids to facilitate delivery of nucleic acids to cells
 IN Monahan, Sean D.; Budker, Vladimir G.; Budker, Tatyana; Wolff, Jon A.; Slattum, Paul M.; Hagstrom, James E.
 PA USA
 SO U.S. Pat. Appl. Publ., 24pp., Cont.-in-part of U.S. Ser. No. 627,247.
 CODEN: USRXCO
 DT Patent
 LA English
 FAN CNT 3

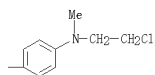
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20070010004	A1	20070111	US 2006-479587	20060630
US 6429200	B1	20020806	US 1999-354957	19990716 <--
US 20030027339	A1	20030206	US 2002-81461	20020221 <--
US 6673612	B2	20040106		
US 20040023393	A1	20040205	US 2003-627247	20030725 <--
US 7091041	B2	20060815		
PRAI US 1998-93321P	P	19980720		
US 1999-354957	A2	19990716		
US 2002-81461	A3	20020221		
US 2003-627247	A2	20030725		
US 1998-93321P	P	19980717		
AB				
Methods are described for modifying nucleic acids to facilitate delivery of the nucleic acids to cells. Thus, compds. which interact with or modify nucleic acids are added to a reverse micelle containing the nucleic acid. After the nucleic acid is suitably modified the reverse micelle is disrupted and the nucleic acid complex or conjugate is recovered. Thus, plasmid DNA in reverse micelles prepared from an aqueous DNA solution and Brij 30 (polyoxyethylene lauryl ether) and TMP (2,2,4-trimethylpentane) was condensed by addition of polylysine or PFL. The synthesis of many cleavable surfactants, such as B-D-glucopyranosyl dodecane disulfide, is described.				
IT 611199-20-3				
RL: RCT (Reactant); RACT (Reactant or reagent) (Cy5-Label-IT) micellar systems for modification of nucleic acids to facilitate delivery of nucleic acids to cells)				
RN 611199-20-3 CAPLUS				
CN 3H-Indolium, 2-[3-[1-[6-[[3-[[[4-[(2-chloroethyl)methylamino]phenyl]methylamino]propyl]dimethylammonio]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)				

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L6 ANSWER 3 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



L6 ANSWER 4 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:852998 CAPLUS

DN 145:264216

TI Aromatic tertiary nitrogen mustards for single-pot attachment of a label to nucleic acid

IN Slattum, Paul M.; Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.

PA Mirus Bio Corporation, USA

S0 U.S. Pat. Appl. Publ., 42 pp., Cont.-in-part of U.S. Ser. No. 413,942.

CODEN: USXXCO

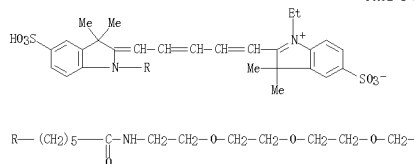
DT Patent

LA English

FAN CNT 6

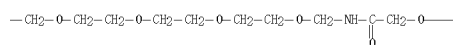
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PI	US 20060188927	A1	20060824	US 2006-415021	20060501
	US 7326780	B2	20080206		
	US 6262252	B1	20010717	US 1997-982485	19971202 <--
	US 20030125527	A1	20030703	US 2001-767794	20010123 <--
	US 6593465	B2	20030715		
PRAI	US 20040152084	A1	20040805	US 2003-356222	20030131 <--
	US 20040210044	A1	20041021	US 2003-413942	20030415 <--
	US 1997-46952P	P	19970619		
	US 1997-982485	A3	19971202		
	US 2001-767794	A3	20010123		
OS	US 2003-356222	A3	20030131		
	US 2003-413942	A2	20030415		
OS	MARPAT 145:264216				
AB	Compds. and methods are provided for a single-pot covalent attachment of a label to nucleic acids comprising forming a covalently attachable labeling reagent for alkylating the mol. Then, combining the covalently attachable labeling reagent with a mixture containing the mol., under conditions wherein the labeling reagent has reactivity with the mol. thereby forming a covalent bond.				
IT	731858-54-1 906073-60-7				
	RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)				
	(aromatic tertiary nitrogen mustards for single-pot attachment of label to nucleic acid)				
RN	731858-54-1 CAPLUS				
CN	3H-Indolium, 2-[5-[1-[4-[4-[(2-chloroethyl)methylamino]phenyl]-6,31,35-trioxo-10,13,16,19,22,25,28,33-octaoxa-7,30,36,40-tetraazabenzotetracont-1-yl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)				

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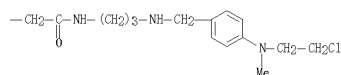


L6 ANSWER 4 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

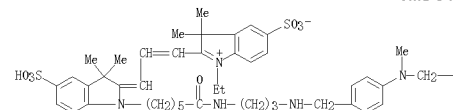


PAGE 1-C



RN 906073-60-7 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[3-[[[4-[(2-chloroethyl)methylamino]phenyl]methylamino]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

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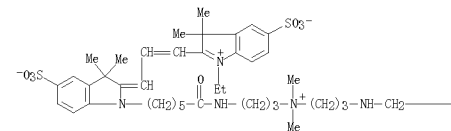
L6 ANSWER 4 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

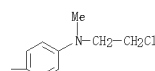
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IT 611199-20-3F, Label-It-Cy3
 RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (aromatic tertiary nitrogen mustards for single-pot attachment of label to nucleic acid)
 RN 611199-20-3 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[3-[[[4-[(2-chloroethyl)methylamino]phenyl]methylamino]propyl]dimethylammonio]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)

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RE. CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 AN 2006:740409 CAPLUS
 DN 145:181796
 TI Alkylating compounds and processes for single-pot attachment of a label to siRNA or microRNA
 IN Slattum, Paul M.; Wolff, Jon A.; Budker, Vladimir G.; Hagstorn, James E.
 PA USA
 SO U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. Ser. No. 413,942.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20060167239	A1	20060727	US 2006-537122	20060120
US 6262252	B1	20010717	US 1997-982485	19971202 <--
US 20030125527	A1	20030703	US 2001-767794	20010123 <--
US 6593465	B3	20030715		
US 20040146867	A1	20040729	US 2003-350725	20030124 <--
US 20040210044	A1	20041021	US 2003-413942	20030415 <--
PRAI US 1997-982485	A3	19971202		
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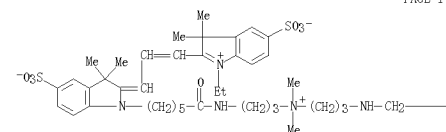
OS MARPAT 145:181796
 AB Comps. and methods are provided for a single-pot covalent attachment of a label to an siRNA comprising forming a covalently attachable labeling reagent for alkylating the mol. Then, combining the covalently attachable labeling reagent with a mixture containing the mol., under conditions wherein the labeling reagent has reactivity with the mol. thereby forming a covalent bond. Nucleic acid labeling reagents utilize the nucleic acid alkylating ability of mustards and three-membered ring compds. and a label or tag, and may also contain a linker or spacer group and/or an affinity group. A reactive nitrogen mustard derivative using in the synthesis of these labeling agents can be the aromatic nitrogen mustard 4-[(2-chloroethyl)-methylamino]-benzaldehyde. The nucleic acid labeling method combines one-step simplicity with high efficiency labeling and results in a labeled nucleic acid that remains intact and stable. The extent of labeling can be controlled by regulating the relative amts of labeling reagent and nucleic acid, by adjusting the length of the incubation of the labeling reagent with the nucleic acid, by controlling the temperature of the incubation, by controlling the absolute concns. of the nucleic acid and labeling reagent, and by controlling the composition of the aqueous or organic solution in which the labeling reaction occurs. The neutral Label-IT-Cyanine3 and neutral Label-IT-PBG-Cyanine6 labeling reagents are effective in labeling RNA, first-strand DNA, and double-stranded DNA, and provides detectable signal when 0.00125 µg/mL DNA and even as little as 0.00625 µg/mL DNA is printed on a microarray.

IT 611199-20-3P, LabelIT-Cy3 727379-96-6P, LabelIT-Cy 5
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (alkylating compds. and processes for single-pot attachment of label to nucleic acid)
 RN 611199-20-3 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[3-[3-[[[4-(2-chloroethyl)methylamino]phenyl]methylamino]propyl]dimethylammonio]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)

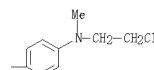
L6 ANSWER 5 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 PAGE 1-B

--CH₂--CH₂Cl

L6 ANSWER 5 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
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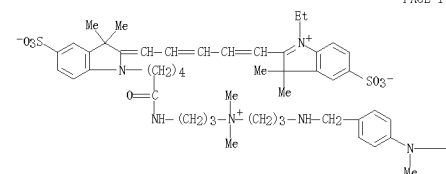


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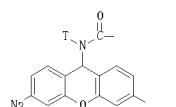
RN 727379-96-6 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[5-[[3-[3-[[[4-(2-chloroethyl)methylamino]phenyl]methylamino]propyl]dimethylammonio]propyl]amino]-6-oxopentyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)

PAGE 1-A



L6 ANSWER 6 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2006:708586 CAPLUS
 DN 145:158608
 TI Nucleosides/nucleotides conjugated to labels via cleavable linkages and their use in nucleic acid sequencing
 IN Milton, John; Ruediger, Silke; Liu, Xiaohai
 PA UK
 SO U.S. Pat. Appl. Publ., 25 pp., Cont.-in-part of U.S. Ser. No. 227,131.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20060160081	A1	20060720	US 2005-525399	20050223
US 20030104437	A1	20030605	US 2002-227131	20020823 <--
US 7057026	B2	20060606		
WO 2004018493	A1	20040304	WO 2003-GB3690	20030822 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LG, LR, LS, LT, LV, MA, MD, ME, MG, MN, MW, MY, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI US 2002-227131	A2	20020823		
WO 2003-GB3690	W	20030822		
GB 2001-29012	A	20011204		



AB The invention provides a nucleotide or nucleoside having a base attached to a detectable label via a cleavable linker, characterized in that the cleavable linker contains a moiety selected from the group comprising -XCH(N₃)-, -XCH(YCH₂CH:CH₂)-, -XCH(NICOYCH₂CH:CH₂)-, and I (X = O, S, NH, N₃; O = (substituted)C1-10-alkyl; Y = O, S, NH, N(allyl); T = H, (substituted)C1-10-alkyl; hyphen indicates where the moiety is connected to the remainder of the nucleotide or nucleoside). The linkers may be cleaved using a water-soluble phosphine or water-soluble phosphine-based transition metal catalyst. These nucleotides are useful in Sanger or Sanger-type sequencing methods. Thus, the synthesis of three labeled uridine derivs. and the use of such labeled nucleotides for DNA sequencing is demonstrated.

IT 899430-55-8P
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (nucleosides/nucleotides conjugated to labels via cleavable linkages and their use in nucleic acid sequencing)

RN 899430-55-8 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[2-[2-[3-[2-azido-2-[2-[2-[3-[1-[3-O-(azidomethyl)-2-deoxy-5-O-[hydroxy[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-

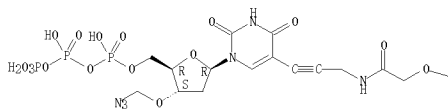
L6 ANSWER 6 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 B-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propynyl]amino]-2-oxoethoxy]ethoxy]ethoxy]benzoyl]amino]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, compd. with N,N-dibutyl-1-butanamine (9CI) (CA INDEX NAME)

CM 1

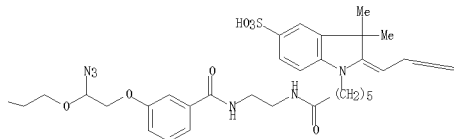
CRN 899430-54-7
 CMF C59 H74 N13 O26 P3 S2

Absolute stereochemistry.
 Double bond geometry unknown.

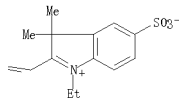
PAGE 1-A



PAGE 1-B



PAGE 1-C



CM 2

CRN 102-82-9
 CMF C12 H27 N

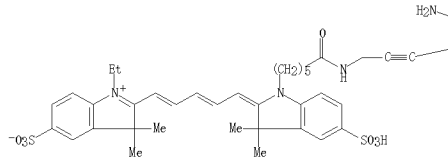
L6 ANSWER 7 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 AN 2006:1306412 CAPLUS
 DN 144:17894
 TI SSCP method for quantitative determination of spinal muscular atrophy-associated gene SMN1
 IN Novelli, Giuseppe; Capon, Francesca; Semprini, Sabrina; Brancati, Francesco; Tacconelli, Alessandra; Dallapiccola, Bruno
 PA Consiglio Nazionale delle Ricerche, Italy
 SO Ital., 17 pp.
 CODEN: ITRXBY
 DT Patent
 LA Italian
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI IT 1318702	B1	20050827	IT 2000-MI2041	20000919 <--
IT 2000MI2041	A1	20020319		
PRAI IT 2000-MI2041		20000919		

AB Spinal muscular atrophy (SMA) is an autosomal recessive genetic disease occurring at a rate of 1:10,000. One of every 40-60 individuals is a carrier. The SMA locus has been mapped to chromosome 5q11.2-13. SMA is caused by a deletion of the SMN gene, which is present in two copies, SMN1 and SMN2. These genes differ by only 5 nucleotides. SMA results from alterations in homozygosity of only the SMN1 gene. Disclosed is a sensitive and specific method based on SSCP (single-strand conformation polymorphism) for quantification of the SMN1 gene relative to a control gene (KB).
 IT 325747-77-1, Cy5-dCTP
 RL: ARU (Analytical role, unclassified): ANST (Analytical study) (primer containing; SSCP method for quant. determination of spinal muscular atrophy-associated gene SMN1)
 RN 325747-77-1 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[3-[4-amino-1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-B-D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

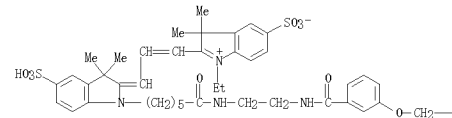


L6 ANSWER 6 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

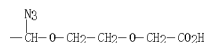


IT 899430-53-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (nucleosides/nucleotides conjugated to labels via cleavable linkages and their use in nucleic acid sequencing)
 RN 899430-53-6 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[2-[3-[2-azido-2-[2-(carboxymethoxy)ethoxy]ethoxy]benzoyl]amino]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

PAGE 1-A

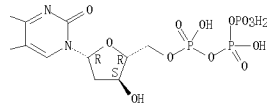


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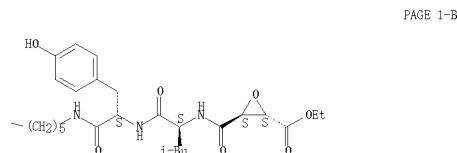
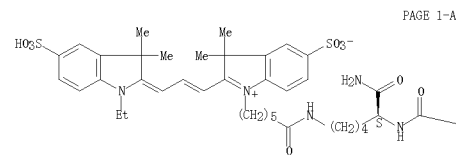


L6 ANSWER 7 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

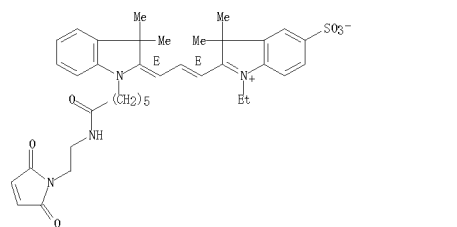
PAGE 1-B



L6 ANSWER 8 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
 AN 2005:144996 CAPLUS
 DN 142:311913
 TI Enzyme microarrays: on-chip determination of inhibition constants based on affinity-label detection of enzymatic activity. [Erratum to document cited in CA141:309500]
 AU Eppinger, Joerg; Funeriu, Daniel P.; Miyake, Masato; Denizot, Lucile; Miyake, Jun
 CS ForschungsDozentur Molekulare Katalyse Lehrstuhl fuer Anorganische Chemie, Technische Universitaet Muenchen, Garching, 85748, Germany
 SO Angewandte Chemie, International Edition (2004), 43 (34), 4389
 CODEN: ACIEFF; ISSN: 1438-7851
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 AB The correct graph for Figure 4b is given.
 IT 767292-21-7
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (on-chip determination of inhibition consts. based on affinity-label detection of cysteine protease activities (Erratum))
 RN 767292-21-7 CAPLUS
 CN L-Lysinamide, N-[[[(2S,3S)-3-(ethoxycarbonyl)oxiran-1-yl]carbonyl]-L-leucyl-L-tyrosyl-6-aminohexanoyl]-N-[6-[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxobexyl]-, inner salt (9CI) (CA INDEX NAME)
 Absolute stereochemistry.
 Double bond geometry unknown.



L6 ANSWER 9 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)



RE, CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
 AN 2004:1059603 CAPLUS
 DN 142:34835
 TI Differential analysis of cell surface proteins on closed membrane structures by labelling with dyes in the presence of an internal standard
 IN Cospe, Catherine; Fowler, Susan Janet; Horsey, Inogen; Sweet, Alison Claire
 PA Amersham Biosciences UK Limited, UK
 SO PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN, CNT 1

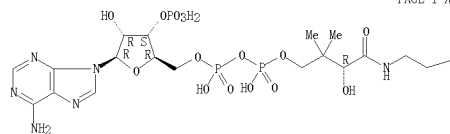
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004106923	A1	20041209	WO 2003-GB2323	20030528 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BS, CA, CH, CN, CO, CR, CU, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2525685	A1	20041209	CA 2003-2525685	20030528 <--
AU 2003234038	A1	20050121	AU 2003-234038	20030528
AU 2003234038	B2	20060221		
EP 1627224	A1	20060222	EP 2003-727708	20030528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1839316	A	20060927	CN 2003-826856	20030528
JP 2006526137	T	20061116	JP 2005-500161	20030528
US 2007016116	A1	20070712	US 2006-557521	20060911
PRAI WO 2003-GB2323	W	20030528		
OS MARPAT 142:34835				
AB Disclosed are matched fluorescent reagents and a method for reproducibly labeling membrane components, such as those expressed on the cell surface, and subsequent differential anal. of the labeled components to detect differences between cell types and states. Furthermore, the present method utilizes an internal standard in order to match protein patterns across gels thereby avoiding gel-to-gel variation. The method according to the invention is particularly useful, for example, for detecting low abundance membrane proteins, for detecting changes in receptors expressed in the cell membrane, for example on ligand binding, or in response to stimuli.				
IT 644978-91-6				
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (differential anal. of cell surface proteins on closed membrane structures by labelling with dyes in presence of an internal standard)				
RN 644978-91-6 CAPLUS				
CN 3H-Indolium, 2-[[[15,3E)-3-[1-[6-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)				
Double bond geometry as shown.				

L6 ANSWER 10 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
 AN 2004:1037349 CAPLUS
 DN 142:19000
 TI Labeling of fusion proteins by enzymic incorporation of a coenzyme A derivative into an acyl carrier protein moiety
 IN Johnsson, Kai; George, Nathalie
 PA EPFL-Ecole Polytechnique Federale de Lausanne, Switz.
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN, CNT 1

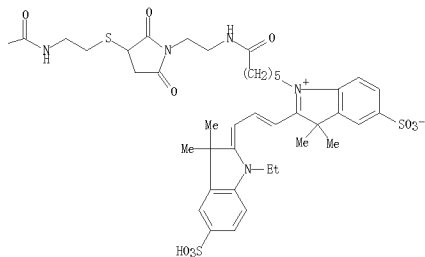
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004104588	A1	20041202	WO 2004-1B1733	20040519 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KE, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004242249	A1	20041202	AU 2004-242249	20040519 <--
CA 2526579	A1	20041202	CA 2004-2526579	20040519 <--
EP 1627226	A1	20060222	EP 2004-733881	20040519
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1826527	A	20060830	CN 2004-80020985	20040519
JP 2007509608	T	20070419	JP 2006-530696	20040519
US 20070082336	A1	20070412	US 2006-557897	20051122
PRAI EP 2003-405364	A	20030523		
WO 2004-1B1733	W	20040519		
OS CASREACT 142:19000; MARPAT 142:19000				
AB A method for labeling acyl carrier protein (ACP) fusion proteins using derivs. of CoA is described. The method relies on the transfer of a label from a CoA type substrate to an ACP fusion protein using a holo-acyl carrier protein synthase (ACPS) or a homolog thereof. The method allows detecting and manipulating the fusion protein, both in vitro and in vivo, by attaching mols. to the fusion proteins that introduce a new phys. or chemical property to the fusion protein. Examples of such labels are, among others, spectroscopic probes or reporter mols., affinity tags, mols. generating reactive radicals, cross-linkers, ligands mediating protein-protein interactions or mols. suitable for the immobilization of the fusion protein. Synthesis of a series of reporter mol. conjugates, including digoxigenin, Cy3 and Cy5, with CoA is reported.				
IT 756898-09-6F 756898-10-9F				
RL: ARG (Analytical reagent use, unclassified); BIU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and labeling use of: labeling of fusion proteins by enzymic incorporation of coenzyme derivative into acyl carrier protein moiety)				
RN 756898-09-6 CAPLUS				
CN Coenzyme A, 5'-[[2-[[[6-[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxobexyl]amino]ethyl]-2,5-dioxo-3-pyrrolidiny]-, inner salt (9CI) (CA INDEX NAME)				
Absolute stereochemistry. Double bond geometry unknown.				

L6 ANSWER 10 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

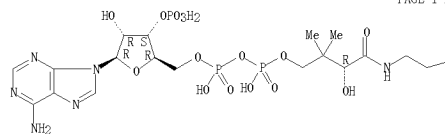


RN 756898-10-9 CAPLUS
 CN Coenzyme A, S-[1-[2-[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]ethyl]-2,5-dioxo-3-pyrrolidyl]-, inner salt (9CI) (CA INDEX NAME)

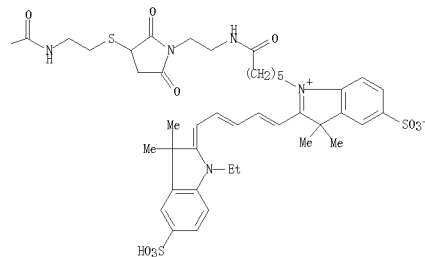
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 10 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

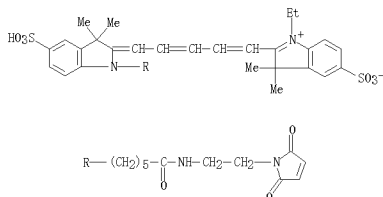


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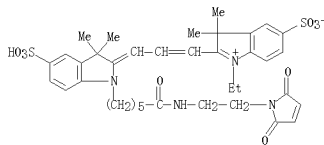


IT 416853-49-1 616207-80-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactions of: labeling of fusion proteins by enzymic incorporation of coenzyme derivative into acyl carrier protein moiety)
 RN 416853-49-1 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[2-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

L6 ANSWER 10 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 616207-80-8 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[2-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)



RE,CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

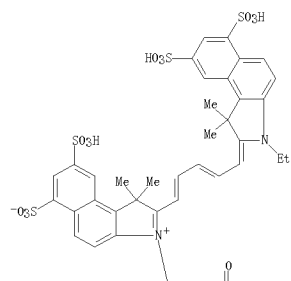
L6 ANSWER 11 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:913618 CAPLUS
 DN 142:109507
 TI In vivo Near-Infrared Fluorescence Imaging of Integrin $\alpha v \beta 3$ in Brain Tumor Xenografts
 AU Chen, Xiaoyuan; Conti, Peter S.; Moats, Rex A.
 CS PET Imaging Science Center, University of Southern California Vex School of Medicine, Los Angeles, CA, USA
 SO Cancer Research (2004), 64(21), 8009-8014
 CODEN: CNEARS; ISSN: 0008-5472
 PB American Association for Cancer Research
 DT Journal
 LA English
 AB Noninvasive visualization of cell adhesion using the $\alpha v \beta 3$ integrin expression in vivo has been well studied by using the radionuclide imaging modalities in various preclin. tumor models. A literature survey indicated no previous use of cyanine dyes as contrast agents for in vivo optical detection of tumor integrin. Herein, we report the integrin receptor specificity of novel peptide-dye conjugate arginine-glycine-aspartic acid (RGD)-Cy5.5 as a contrast agent in vitro, in vivo, and ex vivo. The RGD-Cy5.5 exhibited intermediate affinity for $\alpha v \beta 3$ integrin (IC50 = 58.1 \pm 5.6 nmol/L). The conjugate led to elevated cell-associated fluorescence on integrin-expressing tumor cells and endothelial cells and produced minimal cell fluorescence when coincubated with c(RGDyK). In vivo imaging with a prototype three-dimensional small-animal imaging system visualized s.c. U87MG glioblastoma xenograft with a broad range of concns. of fluorescent probe administered via the tail vein. The intermediate dose (0.5 nmol) produces better tumor contrast than high dose (3 nmol) and low dose (0.1 nmol) during 30 min to 24 h postinjection, because of partial self-inhibition of receptor-specific tumor uptake at high dose and the presence of significant amount of background fluorescence at low dose, resp. The tumor contrast was also dependent on the mouse viewing angles. Tumor uptake of RGD-Cy5.5 was blocked by unlabeled c(RGDyK). This study suggests that the combination of the specificity of RGD peptide/integrin interaction with near-IR fluorescence detection may be applied to noninvasive imaging of integrin expression and monitoring anti-integrin treatment efficacy providing near real-time measurements.
 IT S20967-21-3, RGD-Cy 5.5
 RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (near-IR fluorescence imaging of integrin $\alpha v \beta 3$ in brain tumor)
 RN S20967-21-3 CAPLUS
 CN Cyclo(L-arginyl)kyl-L- α -aspartyl-D-tyrosyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadien-1-yl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-lysyl], inner salt (CA INDEX NAME)

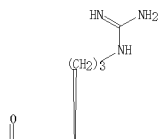
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 11 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

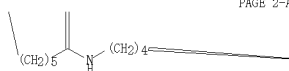
PAGE 1-A



PAGE 1-B



PAGE 2-A



L6 ANSWER 12 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:906005 CAPLUS

DN 141:374689

TI

Methods of measuring the ability of a test compound to inactivate a

biological target in the cells of a subject

IN Arico-Muendel, Christopher C.; Benjamin, Dennis; Thompson, Charles; Wang,

Bryan; Wakefield, James; Gefter, Malcolm L.

PA Praeicis Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004/092728	A2	2004/1028	WO 2004-US10941	2004/0407 <--
WO 2004/092728	A3	2005/0602		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, GU, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LI, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004/230596	A1	2004/1028	AU 2004-230596	2004/0407 <--
CA 2518961	A1	2004/1028	CA 2004-2518961	2004/0407 <--
US 2004/0265917	A1	2004/1230	US 2004-820630	2004/0407 <--
EP 1620731	A2	2006/0201	EP 2004-749909	2004/0407
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
JP 2006/522589	T	2006/1005	JP 2006-501261	2004/0407
PRAI US 2003-460920P	P	2003/0407		
WO 2004-US10941	A	2004/0407		

AB The invention provides a method of assessing the ability of a test compound (e.g. a fumagillin analog) which is an inhibitor of a biol. target to inhibit the biol. target (e.g. an enzyme such as methionine aminopeptidase 2) in a biol. compartment of interest when administered to a subject in vivo.

IT 781674-14-4

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USBS (Uses) (methods for measuring ability of test compound to inactivate biol. target in cells of subject)

RN 781674-14-4 CAPLUS

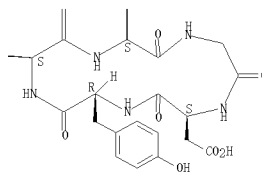
CN L-Lysine, N-[[[[(3R,4S,5S,6R)-5-methoxy-4-[(2R,3R)-2-methyl-3-(3-methyl-2-butenyl)oxiranyl]-1-oxaspiro[2.6]oct-6-yl]oxy]carbonyl]-D-valyl][2-(2-aminethoxyethoxy)acetyl][2-(2-aminethoxyethoxy)acetyl]-N-[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-oxohexyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

L6 ANSWER 11 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

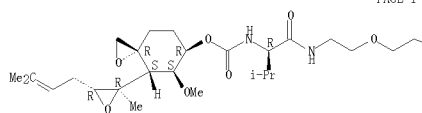
PAGE 2-B



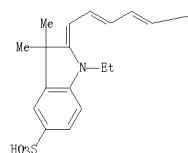
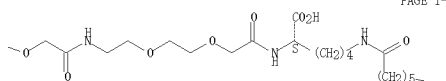
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

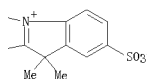
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PAGE 1-B



PAGE 1-C

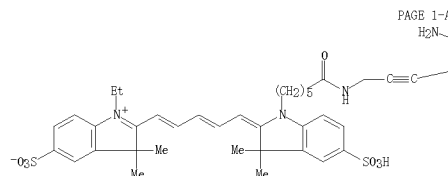


L6 ANSWER 13 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:787865 CAPLUS
 DN 142:276258
 TI Silica-based solid phase extraction of DNA on a microchip
 AU Chen, Xiaofang; Shen, Keyue; Liu, Peng; Guo, Mini; Cheng, Jing; Zhou, Yuxiang
 CS Department of Biological Sciences and Biotechnology, Tsinghua University, Beijing, 100084, Peop. Rep. China
 SO Tsinghua Science and Technology (2004), 9(4), 379-383, 405
 CODEN: TSTEP7; ISSN: 1007-0214
 PB Tsinghua University Press
 DT Journal
 LA English
 AB Micro total anal. systems for chemical and biol. anal. have attracted much attention. However, microchips for sample preparation and especially DNA purification are

still underdeveloped. This work describes a solid phase extraction chip for purifying DNA from biol. samples based on the adsorption of DNA on bare silica beads prepaced in a microchannel. The chip was fabricated with polydimethylsiloxane. The silica beads were packed in the channel on the chip with a tapered microchannel to form the packed bed. Fluorescence detection was used to evaluate the DNA adsorbing efficiency of the solid phase. The polymerase chain reaction was used to evaluate the quality of the purified DNA for further use. The extraction efficiency for the DNA extraction chip is approx. 50% with a 150-nL extraction volume. Successful amplification of DNA extracted from human whole blood indicates that this method is compatible with the polymerase chain reaction.

IT 325747-77-1, Cy6-dCTP
 RL: ANO (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (silica-based solid phase extraction of DNA on a microchip)
 RN 325747-77-1 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[[3-[4-amino-1-[2-deoxy-5-O-
 [hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]- β -D-erythro-
 pento-furanosyl]-1,2-dihydro-2-oxo-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-
 oxohexyl]-1,3-dihydro-3,8-dimethyl-6-sulfo-2H-indol-2-ylidene]-1,3-
 pentadien-1-yl]-1-ethyl-3,8-dimethyl-6-sulfo-, inner salt (CA INDEX NAME)

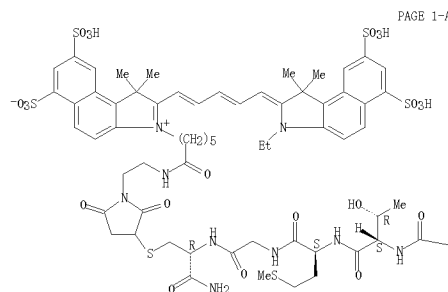
Absolute stereochemistry.
 Double bond geometry unknown.



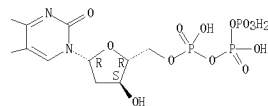
L6 ANSWER 14 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:775925 CAPLUS
 DN 141:421859
 TI Developing a peptide-based near-infrared molecular probe for protease sensing
 AU Pham, Wellington; Choi, Yongdoo; Weissleder, Ralph; Tung, Ching-Hsuan
 CS Center for Molecular Imaging Research, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, 02129, USA
 SO Bioconjugate Chemistry (2004), 15(6), 1403-1407
 CODEN: BCCHBS; ISSN: 1045-1802
 PB American Chemical Society
 DT Journal
 LA English
 AB Recently near-IR (NIR) mol. probes have become important reporter mol.s. for a number of types of in vivo biomedical imaging. A peptide-based NIR fluorescence probe consisting of a NIR fluorescence emitter (Cy5.5), a NIR fluorescence absorber (NIRQ820), and a protease selective peptide sequence was designed to sense protease activity. Using a MMP-7 model, we showed that NIRQ820 efficiently absorbs the emission energy of Cy5.5 resulting in a low initial signal. Upon reacting with its target, MMP-7, the fluorescence signal of the designed probe was increased by 7-fold with a k_{cat}/K_m of 100,000 M⁻¹ s⁻¹. The described synthetic strategy should have wide application for other NIR probe preps.

IT 795315-58-1F 795315-59-2P
 RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
 (peptide-based near-IR mol. probe for protease sensing)
 RN 795315-58-1 CAPLUS
 CN L-Cysteinamide, N-[[2-[2-[3-[[5-carboxy-1,3-dihydro-3,8-dimethyl-1-(4-sulfo-butyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,8-dimethyl-1-(4-sulfo-butyl)-3H-indolium-5-yl]carbonyl]glycyl-L-valyl-L-prolyl-L-leucyl-L-tyrosyl-L-leucyl-L-threonyl-L-methionylglycyl-S-[1-[2-[6-[2-[5-[3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-oxohexyl]amino]ethyl]-2,5-dioxo-3-pyrrolidinyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

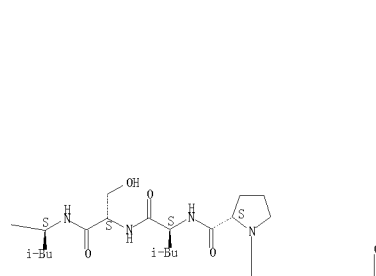


L6 ANSWER 13 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 PAGE 1-B

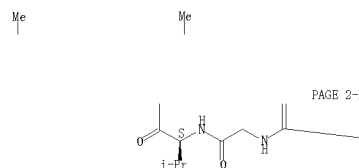


RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 PAGE 1-B

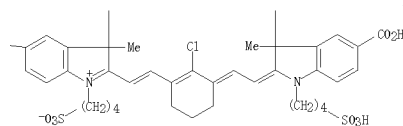


PAGE 1-C



L6 ANSWER 14 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 2-C

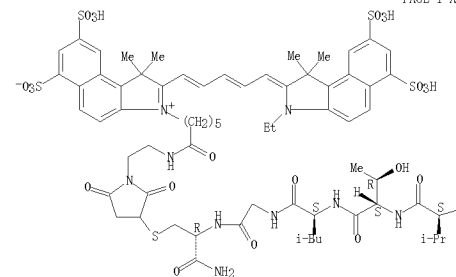


RN 795315-59-2 CAPLUS

CN L-Cysteinamide, glycyl-L-seryl-L-methionyl-L-leucyl-L-prolyl-L-valyl-L-threonyl-L-leucylglycyl-S-[1-[2-[1-[6-[2-[5-[3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,8-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-oxohexyl]amino]ethyl]-2,5-dioxo-3-pyrrolidinyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

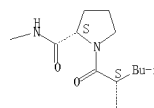
PAGE 1-A



PAGE 2-A

H2N

PAGE 2-B



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:714940 CAPLUS

DN 141:391504

TI General Strategy for Biosensor Design and Construction Employing

Multifunctional Surface-Tethered Components

AU Medintz, Igor L.; Anderson, George P.; Lassman, Michael E.; Goldman, Ellen

R.; Bettencourt, Laura A.; Mauro, J. Matthew

CS Center for Bio/Molecular Science and Engineering, U.S. Naval Research

Laboratory, Washington, DC, 20375, USA

SO Analytical Chemistry (2004), 76(19), 5620-5629

CODEN: ANCHAM; ISSN: 0003-2700

PB American Chemical Society

DT Journal

LA English

OS CASREACT 141:391504

AB Biosensors function by reversibly linking bioreceptor-target analyte binding with closely integrated signal generation and can either continuously monitor analyte concns. or be returned to baseline readout values by removal of analyte. We present an approach for producing fully reversible, reagentless, self-assembling biosensors on surfaces. In the prototype biosensor, quencher-dye-labeled biotin-linked E. coli maltose binding protein (MBP) bound in a specific orientation to a NeutraAvidin-coated surface is employed as a bioreceptor. To complete sensor formation, a modular tether arm consisting of a flexible biotinylated DNA oligonucleotide, a fluorescence resonance energy-transfer (FRET) donor dye, and a distal β -cyclodextrin (β -CD) analyte analog is bound in an equimolar amount to the same surface by means of DNA-directed immobilization. After self-assembly, a baseline level of FRET quenching is observed due to specific interaction between the β -CD of the flexible tether arm and the sugar binding site of MBP, which brings the two dyes into proximity. Addition of the target analyte, the nutrient maltose, displaces the linked β -CD-dye of the DNA-based tether arm, and a concentration-dependent change in FRET results. Biosensor sensitivity and dynamic range can be controlled by either using MBP variants having different binding consts. or by binding of modulator DNA oligonucleotides that are complementary to the flexible DNA tether. The sensor can be regenerated and returned to baseline quenching levels by washing away analyte. A complex set of interactions apparently exists on the sensing surface that may contribute to sensor behavior and range. This approach may represent a general way to assemble a wide range of useful biosensors.

616207-80-8

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)

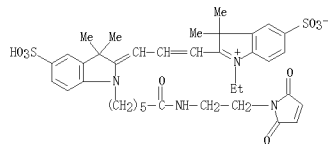
(General strategy for biosensor design and construction employing

multifunctional surface-tethered components for maltose anal.)

RN 616207-80-8 CAPLUS

CN 2H-Indolium, 2-[3-[1-[6-[2-[2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA

INDEX NAME)



L6 ANSWER 15 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 16 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:633169 CAPLUS
 DN 141:152169
 TI Alkylating compounds and processes for single-pot attachment of a label to nucleic acid
 IN Slattum, Paul M.; Wolff, Jon A.; Hagstrom, James E.; Budker, Vladimir G.
 PA USA
 SO U.S. Pat. Appl. Publ., 41 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20040152084	A1	20040805	US 2003-356222	20030131 <--
WO 2004070052	A2	20040819	WO 2003-US6227	20030303 <--
WO 2004070052	A3	20041014		
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
EP 1587815	A2	20051026	EP 2003-713798	20030303
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, BE, HU, SK				
US 20060189927	A1	20060824	US 2006-415021	20060501
US 7326780	B2	20080205		
PRAI US 1997-46952P	P	19970519		
US 1997-982485	A3	19971202		
US 2001-767794	A3	20010123		
US 2003-356222	A	20030131		
WO 2003-US6227	F	20030303		
US 2003-413942	A2	20030415		

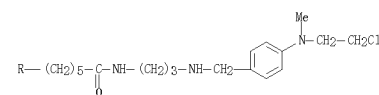
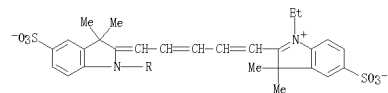
OS MARPAT 141:152169
 AB Comps. and methods are provided for a single-pot covalent attachment of a label to nucleic acids comprising forming a covalently attachable labeling reagent for alkylating the mol. Then, the covalently attachable labeling reagent is combined with a mixture containing the mol., under conditions wherein the labeling reagent has reactivity with the mol., thereby forming a covalent bond. Nucleic acid labeling reagents utilize the nucleic acid alkylating ability of mustards and three-membered ring compds. and a label or tag, and may also contain a linker or spacer group and/or an affinity group. A reactive nitrogen mustard derivative using in the synthesis of these labeling agents can be the aromatic nitrogen mustard 4-[(2-chloroethyl)-methylamino]-benzaldehyde. The nucleic acid labeling method combines one-pot simplicity with high efficiency labeling and results in a labeled nucleic acid that remains intact and stable. The extent of labeling can be controlled by regulating the relative amts of labeling reagent and nucleic acid, by adjusting the length of the incubation of the labeling reagent with the nucleic acid, by controlling the temperature of the incubation, by controlling the absolute concns. of the nucleic acid and labeling reagent, and by controlling the composition of the aqueous or organic solution in which the labeling reaction occurs. The neutral Label-IT-Cyanine3 and neutral Label-IT-FRG-Cyanine6 labeling reagents are effective in labeling RNA, first-strand DNA, and double-stranded DNA, and provides detectable signal when 0.00125 µg/mL DNA and even as little as 0.00625 µg/mL DNA is printed on a microarray.
 IT 731858-31-4 731858-52-9 731858-53-0
 731858-54-1 731858-57-4
 RL: ARG (Analytical reagent use); ANST (Analytical study); USBS (Uses) (alkylating compds. and processes for single-pot attachment of label to nucleic acid)
 RN 731858-31-4 CAPLUS

L6 ANSWER 16 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

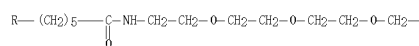
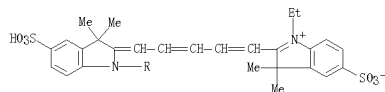
—CH₂Cl

RN 731858-53-0 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[[3-[[[4-[(2-chloroethyl)methylamino]phenyl]methyl]amino]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt), ion(2-)] (CA INDEX NAME)



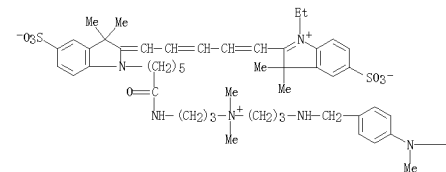
RN 731858-54-1 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[4-[[[2-chloroethyl)methylamino]phenyl]methyl]amino]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

PAGE 1-A



L6 ANSWER 16 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 3H-Indolium, 2-[5-[1-[6-[[[3-[[[4-[(2-chloroethyl)methylamino]phenyl]methyl]amino]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt)] (CA INDEX NAME)

PAGE 1-A

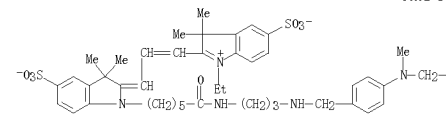


PAGE 1-B

—CH₂—CH₂Cl

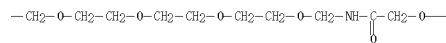
RN 731858-52-9 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[3-[[[4-[(2-chloroethyl)methylamino]phenyl]methyl]amino]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt), ion(2-)] (CA INDEX NAME)

PAGE 1-A

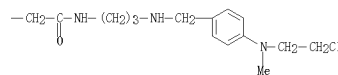


L6 ANSWER 16 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



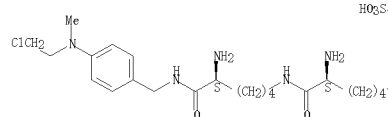
PAGE 1-C



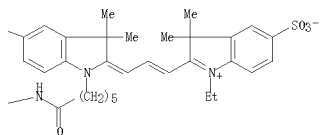
RN 731858-57-4 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[5S)-5-amino-6-[[[5S)-5-amino-6-[[[4-[(2-chloroethyl)methylamino]phenyl]methyl]amino]-6-oxohexyl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

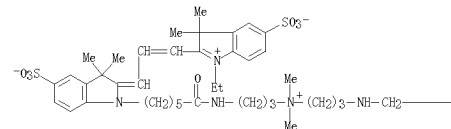


L6 ANSWER 16 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
PAGE 1-B

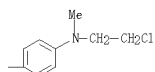


IT 611199-20-3P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
alkylating compds. and processes for single-pot attachment of label to nucleic acid
RN 611199-20-3 CAPLUS
CN 3H-Indolium, 2-[3-[1-[6-[3-[3-[4-[2-chloroethyl)methylamino]phenyl]methylamino]propyl]dimethylammonio]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)

PAGE 1-A



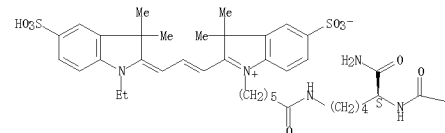
PAGE 1-B



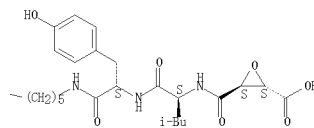
L6 ANSWER 17 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 2004:629654 CAPLUS
DN 141:309500
TI Enzyme microarrays: on-chip determination of inhibition constants based on affinity-label detection of enzymatic activity
AU Epinger, Joerg; Funeriu, Daniel P.; Miyake, Masato; Denizot, Lucile; Miyake, Jun
CS forschungszentrum Molekulare Katalyse Lehrstuhl fuer Anorganische Chemie, Technische Universitaet Muenchen, Garching, 85748, Germany
S0 Angewandte Chemie, International Edition (2004), 43 (29), S806-S810
CODEN: ACIEF5; ISSN: 1433-7851
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB High-throughput screening of libraries of potential inhibitors is possible by using an enzyme microarray method that combines low sample consumption with accuracy and speed. Information about enzyme inhibition can be obtained "on-chip" by the addition of a fluorescently tagged affinity label to a microarray of functional enzymes.
IT 767292-21-7
RL: BSU (Biological study, unclassified); BIOL (Biological study) (on-chip determination of inhibition consts. based on affinity-label detection of cysteine protease activities)
RN 767292-21-7 CAPLUS
CN L-Lysinamide, N-[[[(2S,3S)-3-(ethoxycarbonyl)oxiranyl]carbonyl]-L-leucyl-L-tyrosyl-6-aminohexanoyl-N6-[6-[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



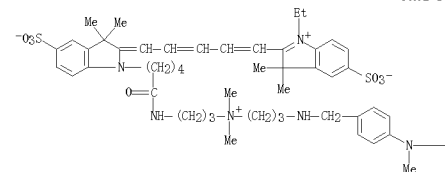
PAGE 1-B



L6 ANSWER 17 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 18 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 2004:609626 CAPLUS
DN 141:135181
TI Single-step attachment of a label to siRNA
IN Slattum, Paul M.; Budker, Vladimir G.; Hagstrom, James E.; Wolff, Jon A.
PA USA
S0 U.S. Pat. Appl. Publ., 17 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 6
PATENT NO. KIND DATE APPLICATION NO. DATE
PI US 20040146867 A1 20040729 US 2003-350725 20030124 <--
WO 2004067776 A1 20040812 WO 2003-US6440 20030303 <--
W: JP
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR
EP 1478779 A1 20041124 EP 2003-716271 20030303 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LL, LU, NL, SE, MC, PT, IE, SI, FI, RO, CH, TR, BG, CZ, EE, HU, SK
US 20060167269 A1 20060727 US 2006-337122 20060120
PRAI US 1997-982485 A3 19971202
US 2001-767794 A3 20010123
US 2003-350725 A 20030124
WO 2003-US6440 W 20030303
US 2003-413942 A2 20030415
OS MARPAT 141:135181
AB Comps. and methods are provided for a single-pot covalent attachment of a label to an siRNA comprising forming a covalently attachable labeling reagent for alkylating the mol. Then, combining the covalently attachable labeling reagent with a mixture containing the mol., under conditions wherein the labeling reagent has reactivity with the mol. thereby forming a covalent bond.
IT 727379-96-6D, LabelIT-Cy 5, siRNA conjugate 727380-23-6D
siRNA conjugate
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (single-step attachment of label to siRNA)
RN 727379-96-6 CAPLUS
CN 3H-Indolium, 2-[5-[1-[5-[3-[3-[4-[2-chloroethyl)methylamino]phenyl]methylamino]propyl]dimethylammonio]propyl]amino]-6-oxopentyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene-1-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)

PAGE 1-A



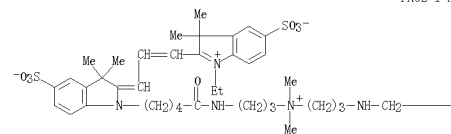
L6 ANSWER 18 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

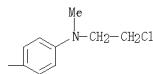
—CH₂—CH₂Cl

RN 727380-23-6 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[3-[4-[(2-chloroethyl)methylamino]phenyl]methylamino]propyl]dimethylammonio]propyl]amino]-6-oxopentyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



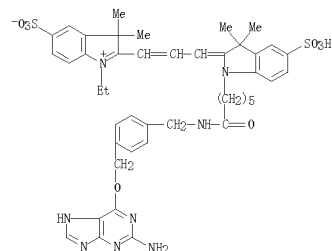
L6 ANSWER 19 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:597188 CAPLUS

DN 141:291592
 TI Labeling of fusion proteins with synthetic fluorophores in live cells
 AU Repplier, Antje; Pick, Horst; Arrivoli, Claudio; Vogel, Horst; Johnsson, Kai
 CS Institute of Chemical Sciences and Engineering, Ecole Polytechnique Federale de Lausanne, Lausanne, CH-1015, Switz.
 SO Proceedings of the National Academy of Sciences of the United States of America (2004), 101(27), 9965-9969
 CODEN: PNASAG; ISSN: 0027-8424
 PB National Academy of Sciences
 DT Journal
 LA English
 AB A general approach for the sequential labeling of fusion proteins of

06-alkylguanine-DNA alkyltransferase (AGT) with different fluorophores in mammalian cells is presented. AGT fusion proteins with different localizations in the cell can be labeled specifically with different fluorophores, and the fluorescence labeling can be used for applications such as multicolor anal. of dynamic processes and fluorescence resonance energy transfer measurements. The facile access to a variety of different AGT substrates as well as the specificity of the labeling reaction should make the approach an important tool to study protein function in live cells.

IT 761443-20-3
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (Labeling of fusion proteins with synthetic fluorophores in live cells)

RN 761443-20-3 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[4-[[[2-amino-9H-purin-6-yl]oxymethyl]phenyl]methylamino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)



RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 20 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:566934 CAPLUS

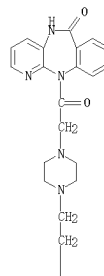
DN 141:325138
 TI Fluorescent Pirenzepine Derivatives as Potential Bitopic Ligands of the Human M1 Muscarinic Receptor
 AU Tahtaoui, Chouaib; Parrot, Isabelle; Klotz, Philippe; Guillier, Fabrice; Galzi, Jean-Luc; Hibert, Marcel; Ilgen, Brigitte
 CS Laboratoire de Pharmacochimie de la Communication Cellulaire Faculte de Pharmacie, UMR CNRS/ULP 7081, Illkirch, 67412, Fr.
 SO Journal of Medicinal Chemistry (2004), 47(17), 4300-4315
 CODEN: JMCMAR; ISSN: 0022-2623
 PB American Chemical Society
 DT Journal
 LA English
 OS CASREACT 141:325138
 AB Following a recent description of fluorescence resonance energy transfer between enhanced green fluorescent protein (EGFP)-fused human muscarinic M1 receptors and Bodipy-labeled pirenzepine, the authors synthesized seven fluorescent derivs. of this antagonist in order to further characterize ligand-receptor interactions. These compds. carry Bodipy [568/568], Rhodamine Red-X [560/580], or Fluorolink Cy3 [550/570] fluorophores connected to pirenzepine through various linkers. All mols. reversibly bind with high affinity to M1 receptors (radioligand and energy transfer binding expts.) provided that the linker contains more than six atoms. The energy transfer efficiency exhibits modest variations among ligands, indicating that the distance separating EGFP from the fluorophores remains almost constant. This also supports the notion that the fluorophores may bind to the receptor protein. Kinetic analyses reveal that the dissociation of two Bodipy derivs. (10 or 12 atom long linkers) is sensitive to the presence of the allosteric modulator brucine, while that of all other mols. (15-24 atom long linkers) is not. The data favor the idea that these analogs might interact with both the acetylcholine and the brucine binding domains.

IT 850734-76-8P
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (Fluorescent pirenzepine derivs. as potential bitopic ligands of human M1 muscarinic receptor)

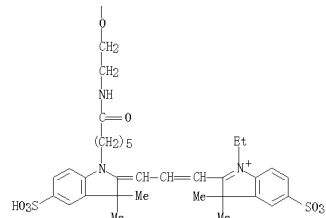
RN 850734-76-8 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[2-[2-[4-[2-(5,6-dihydro-6-oxo-11H-pyrido[2,3-b][1,4]benzodiazepin-11-yl]-2-oxoethyl]-1-piperazinyl]ethoxy]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

L6 ANSWER 20 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



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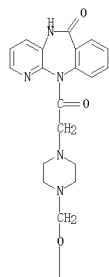


IT 745048-05-9
 RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (fluorescent pirenzepine derivs. as potential bitopic ligands of human M1 muscarinic receptor)

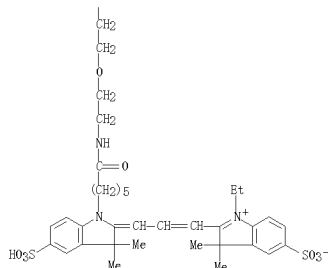
RN 745048-05-9 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[[2-[2-[4-[2-(5,6-dihydro-6-oxo-11H-pyrido[2,3-b][1,4]benzodiazepin-11-yl]-2-oxoethyl]-1-piperazinyl]methoxy]ethoxy]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

L6 ANSWER 20 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 2-A

RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMATL6 ANSWER 21 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:535684 CAPLUS

DN 141:256248

TI Ultrafine membrane compartments for molecular diffusion as revealed by
single molecule techniques

AU Murase, Kotono; Fujiwara, Takahiro; Umemura, Yasuhiro; Suzuki, Kenichi;

Iino, Ryota; Yamashita, Hidetoshi; Saito, Mihoko; Murakoshi, Hideji;

Ritchie, Ken; Kusumi, Akihiro

CS Kusumi Membrane Organizer Project, Exploratory Research for Advanced

Technology Organization (ERATO/SORST), Japan Science and Technology

Agency, Nagoya, Japan

S0 Biophysical Journal (2004), 86(6), 4075-4093

CODEN: BIOJAU; ISSN: 0006-3495

PB Biophysical Society

DT Journal

LA English

AB Plasma membrane compartments, delimited by transmembrane proteins anchored to the membrane skeleton (anchored-protein picket model), would provide the membrane with fundamental mosaicism because they would affect the movement of practically all mols. incorporated in the cell membrane. Understanding such basic compartmentalized structures of the cell membrane is critical for further studies of a variety of membrane functions. Here, using both high temporal-resolution single particle tracking and single fluorescent mol. video imaging of an unsatd. phospholipid, DOPE, we found that plasma membrane compartments generally exist in various cell types, including CHO, HEPA-OVA, PtK2, FRSK, HEK293, HeLa, T24 (BCV304), and NRK cells. The compartment size varies from 30 to 230 nm, whereas the average hop rate of DOPE crossing the boundaries between two adjacent compartments ranges between 1 and 17 ms. The probability of passing a compartment barrier when DOPE is already at the boundary is also cell-type dependent, with an overall variation by a factor of .apprx.7. These results strongly indicate the necessity for the paradigm shift of the concept on the plasma membrane: from the two-dimensional fluid continuum model to the compartmentalized membrane model in which its constituent mols. undergo hop diffusion over the compartments.

IT 754195-31-8

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL

(Biological study)

(ultrafine membrane compartments for mol. diffusion as revealed by single mol. techniques)

RN 754195-31-8 CAPLUS

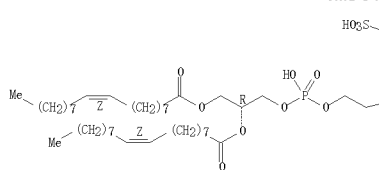
CN 3H-Indolium, 2-[[[(15,3E)-3-[1,3-dihydro-1-[[[4R,25Z]-11-hydroxy-11-oxido-6,17-dioxo-14-[[[(9Z)-1-oxo-9-octadecen-1-yl]oxy]-10,12,16-trioxo-7-aza-11-phosphatetratracont-25-en-1-yl]-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

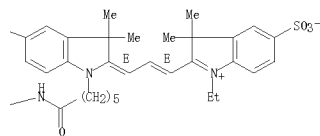
Double bond geometry as shown.

L6 ANSWER 21 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMATL6 ANSWER 22 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:534613 CAPLUS

DN 141:256678

TI Specific Labeling of Cell Surface Proteins with Chemically Diverse

Compounds

AU George, Nathalie; Pick, Horst; Vogel, Horst; Johnsson, Nils; Johnsson, Kai

CS Institute of Chemical Sciences and Engineering, Ecole Polytechnique

Federale de Lausanne (EPFL), Lausanne, CH-1015, Switz.

S0 Journal of the American Chemical Society (2004), 126(29),

8896-8897

CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

AB The specific and covalent labeling of fusion proteins with synthetic mols. opens up new ways to study protein function in the living cell. Here the authors present a novel method that allows for the specific and exclusive extracellular labeling of proteins on the surfaces of live cells with a large variety of synthetic mols. including fluorophores, protein ligands, or quantum dots. The approach is based on the specific labeling of fusion proteins of acyl carrier protein with synthetic mols. through post-translational modification catalyzed by phosphotransferase. The specificity and versatility of the labeling should allow it to become an important tool for studying and manipulating cell surface proteins and for complementing existing approaches in cell surface engineering.

IT 756898-09-0P

RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST

(Analytical study); PREP (Preparation); USES (Uses)

(diverse ligand preparation and use in phosphotransferase-catalyzed labeling of cell surface proteins with acyl carrier protein fusion product derivs.)

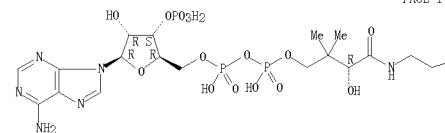
RN 756898-09-0 CAPLUS

CN Coenzyme A, S-[1-[2-[[[6-[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolyl]-1-oxohexyl]amino]ethyl]-2,5-dioxo-3-pyrrolidinyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

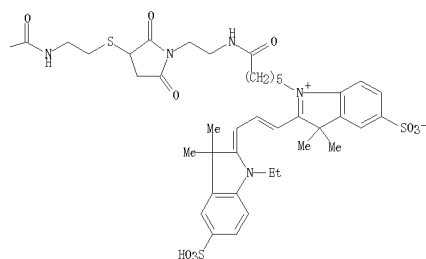
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 22 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

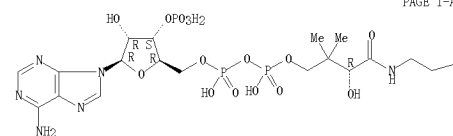
PAGE 1-B



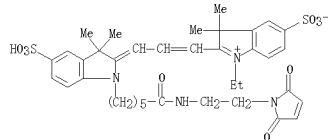
RN 756898-10-9 CAPLUS
 CN Coenzyme A, S-[1-[2-[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]ethyl]-2,5-dioxo-3-pyrrolidinyl]-, inner salt (9C1) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



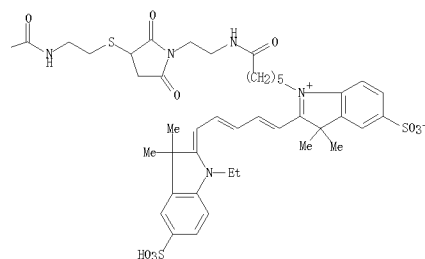
L6 ANSWER 22 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

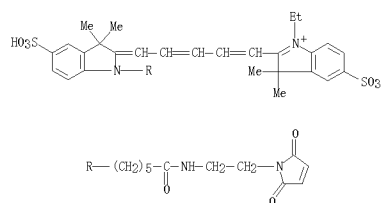
L6 ANSWER 22 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



IT 416853-49-1 616207-80-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (diverse ligand preparation and use in phosphatetheinyltransferase-catalyzed labeling of cell surface proteins with acyl carrier protein fusion product deriva.)

RN 416853-49-1 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)



RN 616207-80-8 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:493991 CAPLUS
 DN 141:38861
 TI Labeling methodology comprising oligopeptides
 IN Auer, Manfred; Meisner, Nicole-Claudia; Seifert, Jan-Marcus
 PA Novartis A.-G., Switz.; Novartis Pharma G.m.b.H.
 SO PCT Int. Appl., 81 pp.
 CODEN: PIXXD2

DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004061270	A2	20040617	WO 2003-EP13715	20031204 <--
W: AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW	AS	20041229		
RW: AM, AZ, BY, BG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CI, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR	A1	20040623	AU 2003-293766	20031204 <--
AU 2003293766	A1	20040622	US 2005-534966	20050516
US 20060134691	A1	20060622		
PRAI GB 2002-28429	A	20021206		
WO 2003-EP13715	W	20031204		
OS MARPAT 141:38861				
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

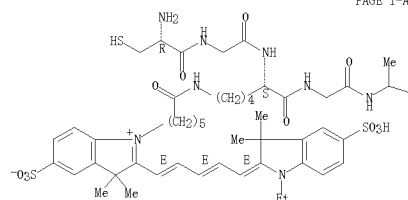
AB A method for providing a labeled target protein or labeled target peptide in high purity comprises the steps of (a) contacting the protein or peptide containing an affinity tagging residue which may be detected by phys. means and optionally spacer and linker residues with an affinity support, (b) removing impurities in the reaction mixture surrounding the affinity support to which the mol. is bound, and (c) cleaving or eluting the mol. from the affinity support. The method is useful, e.g., for ultra high-throughput screening (HTS), especially spectroscopic HTS systems at single mol. resolution. Twenty-six compds. of the invention, e.g., 1, were synthesized.

IT 701277-08-9P 701277-09-0P 701277-10-3P
 701277-11-4P 701277-12-5P 701277-13-6P
 701277-15-8P 701277-16-9P 701277-20-5P
 701277-23-8P 701277-24-9P 704896-96-8P
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 704894-13-3P 704894-20-2P

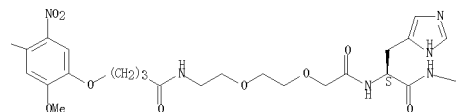
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); B10L (Biological study); PREP (Preparation); USES (Uses)
 (labeling of oligopeptides for use in high-throughput screening)

RN 701277-08-9 CAPLUS
 CN L-Histidinamide, 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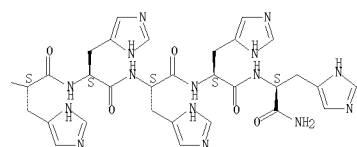
L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
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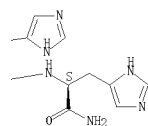


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RN 701277-09-0 CAPLUS
CN L-Histidinamide, L-cysteinylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-

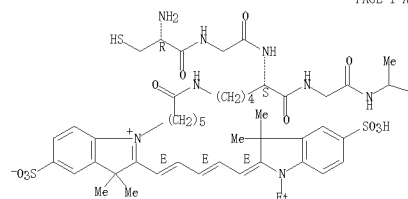
L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
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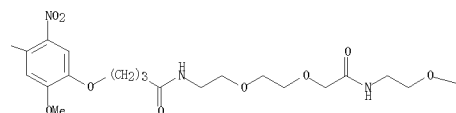
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Absolute stereochemistry.
Double bond geometry as shown.

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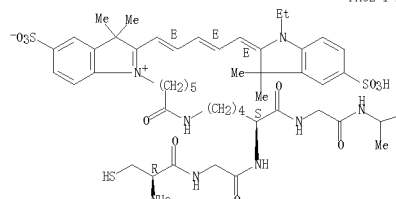
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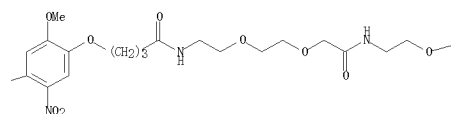
L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
2-methoxy-5-nitrophenoxyl]butanoyl[2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

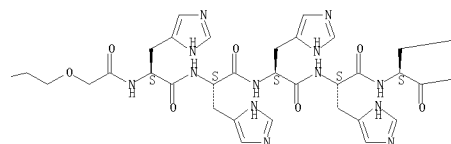
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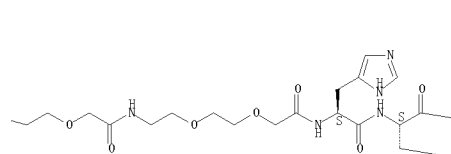
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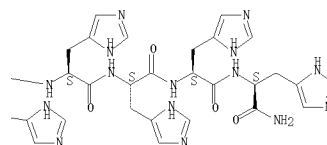
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L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
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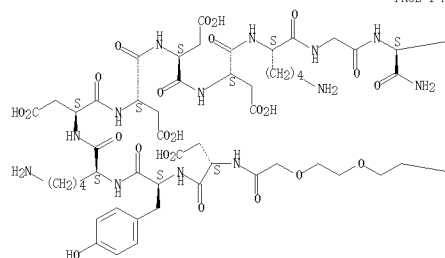


RN 701277-11-4 CAPLUS
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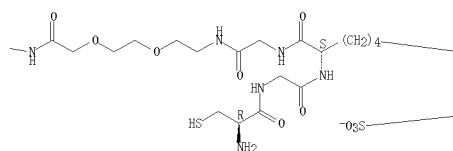
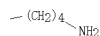
Absolute stereochemistry.
Double bond geometry as shown.

L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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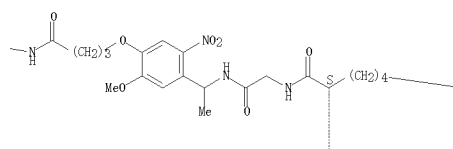
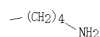


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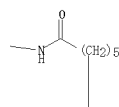


L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

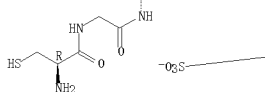
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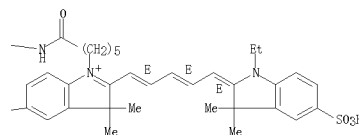


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L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

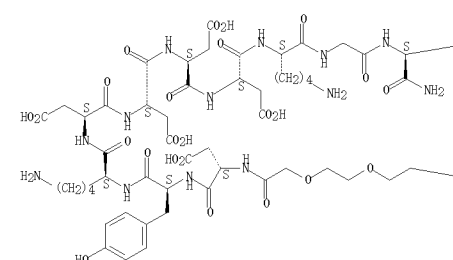
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RN 701277-12-5 CAPLUS
 CN L-Lysinamide, L-cysteinylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl-oxohexyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoyl[2-(2-aminoethoxy)ethoxy]acetyl-L-α-aspartyl-L-tyrosyl-L-lysyl-L-α-aspartyl-L-α-aspartyl-L-lysylglycyl-, inner salt (9CI) (CA INDEX NAME)

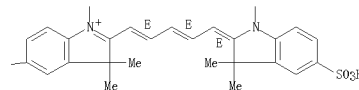
Absolute stereochemistry.
 Double bond geometry as shown.

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L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

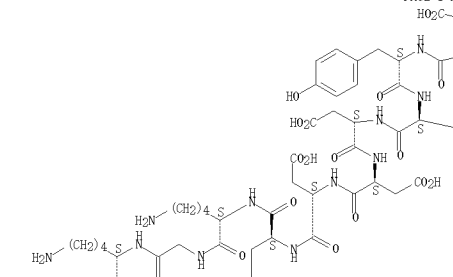
PAGE 2-C



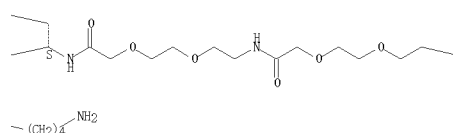
RN 701277-13-6 CAPLUS
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Absolute stereochemistry.
 Double bond geometry as shown.

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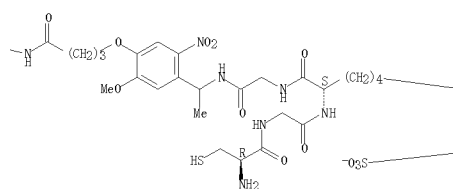


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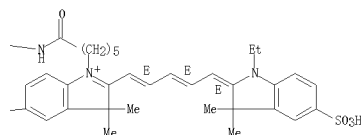


L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-C



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PAGE 2-A

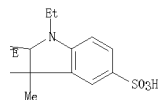


RN 701277-15-8 CAPLUS
 CN L-Histidinamide, L-cysteinylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxobutyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoyl]-2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-L-glutamyl-L-phenylalanyl-L-arginyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

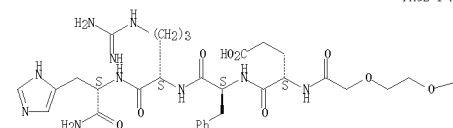
PAGE 1-D



RN 701277-16-9 CAPLUS
 CN L-Histidinamide, N-[4-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxobutyl]glycylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxobutyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoyl]-2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-L-glutamyl-L-phenylalanyl-L-arginyl-, inner salt (9CI) (CA INDEX NAME)

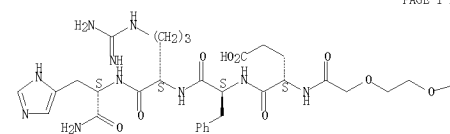
Absolute stereochemistry.
 Double bond geometry as shown.

PAGE 1-A

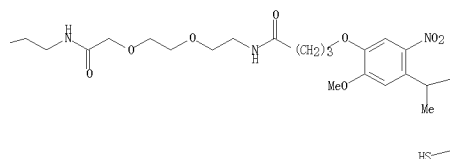


L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

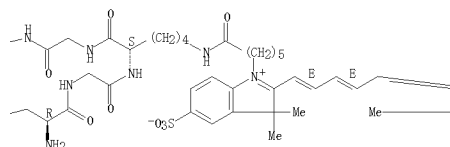
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PAGE 1-B

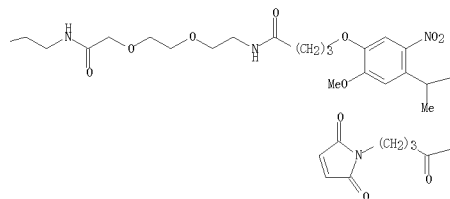


PAGE 1-C

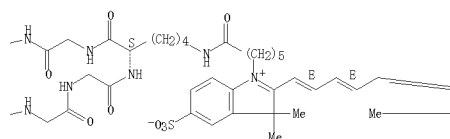


L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

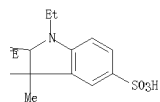


PAGE 1-C



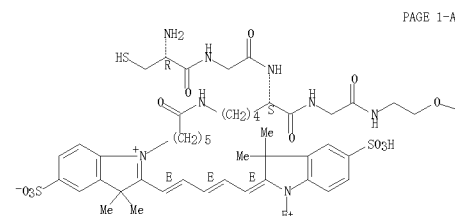
L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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RN 701277-20-5 CAPLUS
 CN L-histidinamide, L-cysteinylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolol-1-oxohexyl]-L-lysylglycyl[2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-, inner salt (9CI) (CA INDEX NAME)

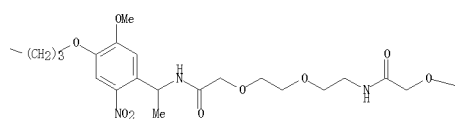
Absolute stereochemistry.
 Double bond geometry as shown.



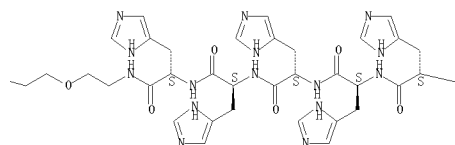
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L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

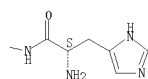
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PAGE 1-C



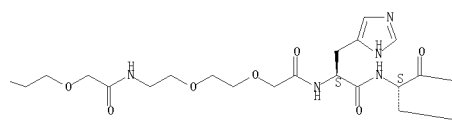
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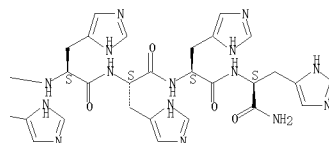
RN 701277-24-9 CAPLUS

L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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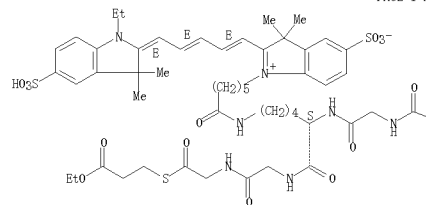
PAGE 1-C



RN 701277-23-8 CAPLUS
 CN Glycine, L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl[2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolol-1-oxohexyl]-L-lysylglycylthio-, inner salt, 13-S-(3-ethoxy-3-oxopropyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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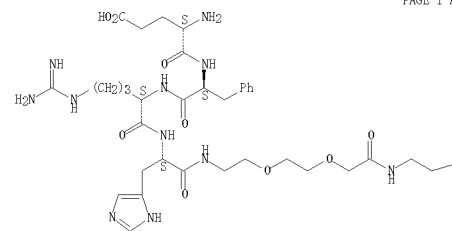


L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

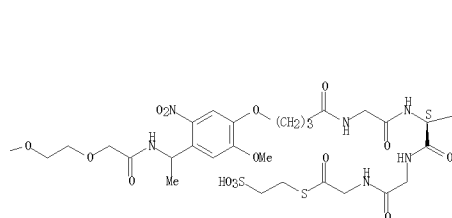
CN Glycine, L-α-glutamyl-L-phenylalanyl-L-arginyl-L-histidyl[2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolol-1-oxohexyl]-L-lysylglycylthio-, inner salt, 11-S-(2-sulfoethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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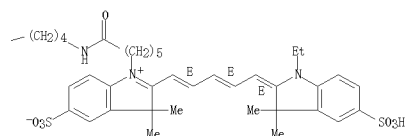


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L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

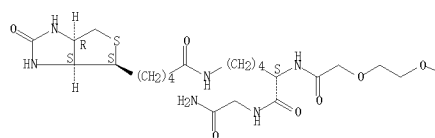
PAGE 1-C



RN 704893-95-8 CAPLUS
 CN Glycinamide, L-cysteinyglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoyl[2-(2-aminoethoxy)ethoxy]acetyl-N6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysyl-, inner salt (9CI) (CA INDEX NAME)

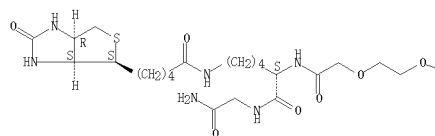
Absolute stereochemistry.
 Double bond geometry as shown.

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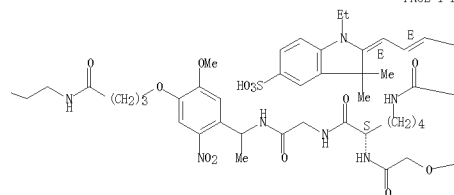


L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

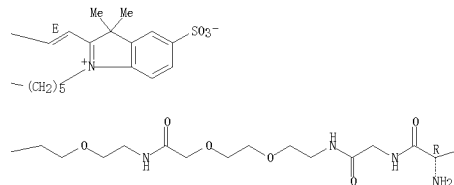
PAGE 1-A



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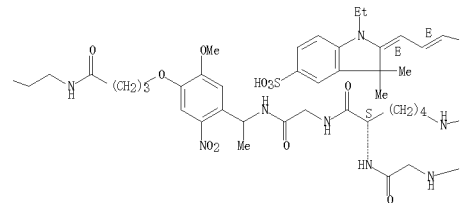


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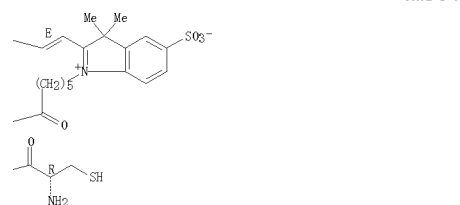


L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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RN 704894-01-9 CAPLUS
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Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

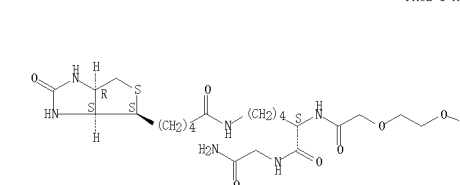
PAGE 1-D



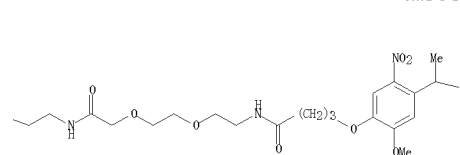
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 CN Glycinamide, L-cysteinyglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoyl[2-(2-aminoethoxy)ethoxy]acetyl-N6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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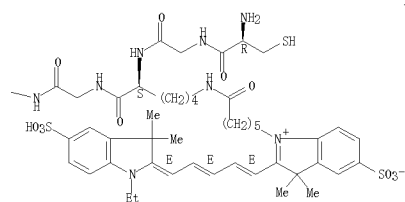


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L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

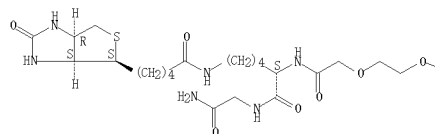
PAGE 1-C



RN 704894-07-5 CAPLUS
 CN Glycinamide, L-cysteinyglycyl-N6-[6-[2-[(1R,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]-L-lysylglycyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoyl[2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-N6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

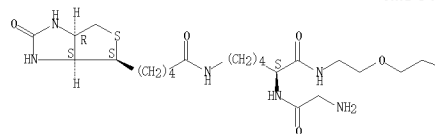
PAGE 1-A



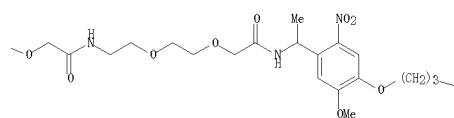
L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 nitrophenoxylbutanoylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]-L-lysylglycylthio-, inner salt, 9-S-(3-ethoxy-3-oxopropyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

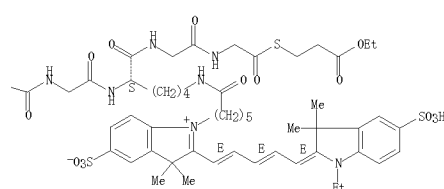
PAGE 1-A



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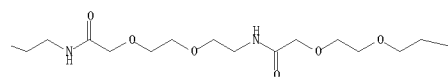
PAGE 1-C



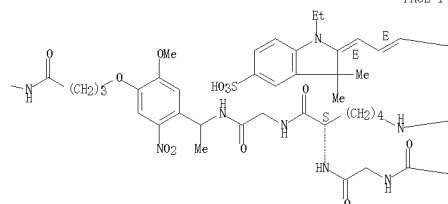
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 CN Glycine, glycyl-N6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysyl[2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-4-[4-(1-aminoethyl)-2-methoxy-5-nitrophenoxyl]butanoylglycyl-N6-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-

L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

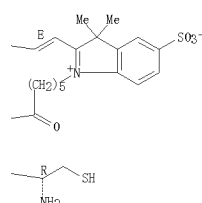
PAGE 1-B



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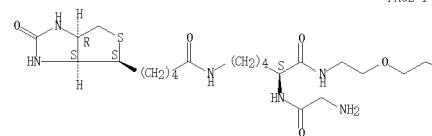


RN 704894-13-3 CAPLUS
 CN Glycine, glycyl-N6-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysyl[2-(2-aminoethoxy)ethoxy]acetyl[2-(2-aminoethoxy)ethoxy]acetyl-4-[4-(1-aminoethyl)-2-methoxy-5-

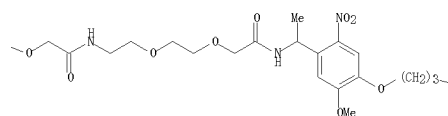
L6 ANSWER 23 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]-L-lysylglycylthio-, inner salt, 9-S-(2-sulfoethyl) ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

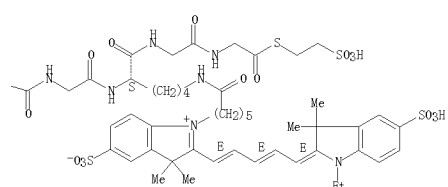
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L6 ANSWER 24 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:371146 CAPLUS
 DN 140:371475
 TI IP3 protein binding assay using detectably-labeled IP3 and an
 extracellular fragment of the IP3 receptor as reagents
 IN Navvi, Tabassum; Rouhani, Riaz; Fung, Peter; Egien, Richard; Singh,
 Rajendra
 PA Discoverx, Inc., USA
 SO PCT Int. Appl., 38 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 1

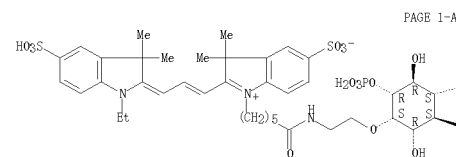
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004/038369	A2	2004/05/06	WO 2003-US33262	2003/10/20 <--
WO 2004/038369	A3	2004/07/01		
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RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2506228	A1	2004/06/06	CA 2003-2506228	2003/10/20 <--
AU 2003/301583	A1	2004/06/13	AU 2003-301583	2003/10/20 <--
US 2004/0106158	A1	2004/06/03	US 2003-689122	2003/10/20 <--
EP 1556682	A2	2005/07/27	EP 2003-809590	2003/10/20
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			

PRAI US 2002-420469P P 2002/10/21
 WO 2003-US33262 W 2003/10/20
 OS MARPAT 140:371475
 AB Protein binding assays are provided for determining IP3 in a sample employing as reagents a conjugate of IP3 joined at the 2-oxy through a bond or linking group to a detectable label and a truncated portion of the extracellular fragment of an IP3R. The reagents are combined with the sample and the amount of IP3 determined by means of the detectable label. The conjugate with the enzyme donor fragment of β -galactosidase or a fluoroscer is specifically described.

IT 685515-08-6P
 RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (IP3 protein binding assay using detectably-labeled IP3 and IP3 receptor extracellular fragment as reagents)
 RN 685515-08-6 CAPLUS
 CN D-myo-Inositol, 2-O-[2-[[[6-[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxobexyl]amino]ethyl]-, inner salt, 3,5,6-tris(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 24 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



PAGE 1-B

...OF O₂H₂

...OF O₂H₂

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 AN 2004:292145 CAPLUS
 DN 140:300070
 TI Fluorescent labeling reagents with multiple donors and acceptors
 IN Kumar, Shiv; Chen, Chung-yuan
 PA Amersham Biosciences Corp, USA
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 2

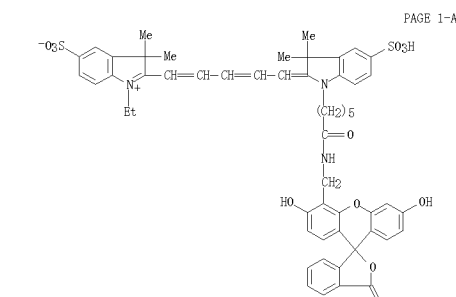
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004/029579	A2	2004/04/08	WO 2003-US30361	2003/09/25 <--
WO 2004/029579	A3	2004/08/19		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2003/276974	A1	2004/04/19	AU 2003-276974	2003/09/25 <--
EP 1546125	A2	2005/06/29	EP 2003-798750	2003/09/25
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2006/500588	T	2006/01/05	JP 2004-539950	2003/09/25
US 2005/0260593	A1	2005/11/24	US 2005-528862	2005/03/23
PRAI US 2002-413517P	P	2002/09/25		
WO 2003-US30361	W	2003/09/25		

AB Disclosed is a novel class of fluorescent resonance energy transfer (FRET) labeling reagents, based on and synthesised from easily prepared dye building blocks. The labeling reagents are in the form of 'cassettes' which enable their attachment to a wide variety of biol. and other materials. A labeling reagent comprises at least two fluorescent dye moieties covalently linked via a linker group and optionally having a target bonding group for attaching the reagent to a target. The energy transfer labeling reagents may be bound to target materials through covalent or non-covalent attachment. The dyes are selected so that the emission spectrum of a first (or donor) dye overlaps the absorption spectrum of a second dye, thereby allowing energy transfer to occur between the dyes. The dye building blocks are 4', 6'-bis-aminomethyl-fluorescein and/or its 5(6)-carboxylic acid and having the structure (I). In addition to the embodiment of the invention which includes a single donor and a single acceptor fluorochrome, the fluorescent energy transfer labeling reagents according to the invention may further comprise one or more third fluorochromes each having third absorption and emission spectra covalently attached to said first or second fluorochromes.

IT 676625-59-5P 676625-60-8P
 RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
 (fluorescent labeling reagents with multiple donors and acceptors)

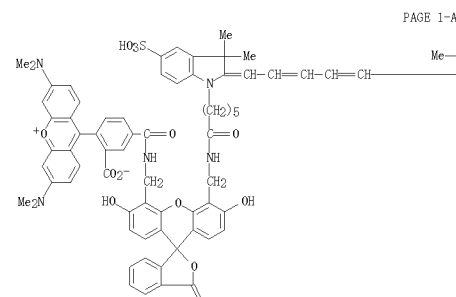
RN 676625-59-5 CAPLUS
 CN 3H-Indolium, 2-[6-[1-[6-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen-4'-yl)methyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

L6 ANSWER 25 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



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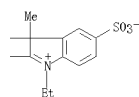
RN 676625-60-8 CAPLUS
 CN 3H-Indolium, 2-[6-[1-[6-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen-4'-yl)methyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt) (CA INDEX NAME)



L6 ANSWER 25 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L6 ANSWER 25 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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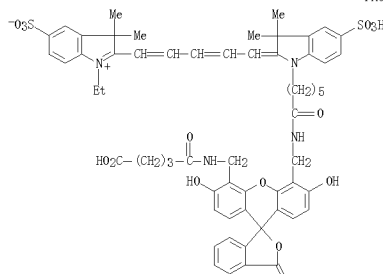
PAGE 1-B



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IT 676625-66-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (fluorescent labeling reagents with multiple donors and acceptors)
 RN 676625-66-4 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[[5'-[[[4-carboxy-1-oxobutyl]amino]methyl]-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-4-yl]methyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

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L6 ANSWER 26 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

L6 ANSWER 26 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

AN 2004:232144 CAPLUS
 DN 140:317655
 TI Energy transfer dyes, terminators, and use thereof
 IN Kumar, Shivi; Chen, Chun-yuan; Rao, Sudhakar
 PA Amersham Biosciences Corp, USA
 SO PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004/029578	A2	2004/04/08	WO 2003-US30360	2003/09/25 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003/272704	A1	2004/04/19	AU 2003-272704	2003/09/25 <--
EP 1546391	A2	2005/06/29	EP 2003-754905	2003/09/25
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006/000665	T	2006/01/05	JP 2004-539949	2003/09/25
US 2006/0255475	A1	2006/11/17	US 2006-528863	2006/03/23
PRAI US 2006-413517P	P	2006/09/25		
WO 2006-US30360	W	2006/09/25		

OS MARPAT 140:317655

AB The present invention relates to a set of four fluorescently labeled dye terminators with improved brightness. Two of them are single-dye-labeled terminators, and the other two dye terminators are based on fluorescent resonance energy transfer (FRET). The FRET dye terminators are generated from the 4',5'-bis-aminomethylfluorescein. Of the two amino groups of the donor dye, 4',5'-bis-aminomethylfluorescein, one amino group is used to attach the acceptor dye, and the other amino group is used to attach the dideoxynucleoside-5'-triphosphate. These terminators are useful as labels in DNA sequencing reactions. A typical single-dye-labeled terminator was manufactured by adding 35 mg 5-carboxyfluorescein-NHS to 5 mL solution 11ddGTP (0.1 M NaHCO₃/Na₂CO₃, pH 8.5) in ice/water bath, and stirring the mixture 16 h at room temperature.

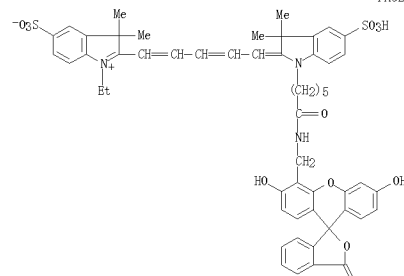
IT 676625-69-6P

RL: IMP (Industrial manufacture); PREP (Preparation)
 (dye label; fluorescently labeled dye terminators with improved brightness for DNA sequencing reactions)

RN 676625-69-6 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-4-yl]methyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

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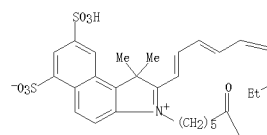


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:251965 CAPLUS
 DN 140:292622
 TI Systems and methods for high-resolution in vivo imaging of biochemical activity in a living organism
 IN Hancu, Ileana; Amaratunga, Mohan Mark; Wicht, Denyce Kramer; Dhawale, Paritosh; Ishaque, Nadeem; Syud, Faisal Ahmed; Johnson, Bruce Fletcher; Williams, Amy Casey
 FA General Electric Company, USA
 SO U.S. Pat. Appl. Publ., 29 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 2
 PATENT NO. KIND DATE APPLICATION NO. DATE
 PI US 20040057903 A1 20040625 US 2002-252311 20020923 <--
 US 7306741 B3 20071204
 WO 2004026344 A1 20040401 WO 2003-US25184 20030811 <--
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NO, NZ, OM, PG, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 AU 2003259769 A1 20040405 AU 2003-259769 20030811 <--
 EP 1545629 A1 20050629 EP 2003-797836 20030811
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 CN 1684710 A 20051019 CN 2003-522648 20030811
 JP 2006511473 T 20060406 JP 2004-537651 20030811
 US 20060118439 A1 20060522 US 2007-875245 20071019
 PRAI US 2002-252311 A 20020923
 WO 2003-US25184 W 20030811
 AB This invention relates to bifunctional detection agents useful for providing high-resolution, in vivo imaging of biochem. activity in a living organism. Methods of using these bifunctional detection agents may comprise administering them into a living organism, and then estimating the localization of the detection agent using one modality (i.e., MRI), while concurrently estimating the level of biol. activity using a second modality (i.e., optical imaging). One of the bifunctional detection agents comprises a magnetic resonance component and an optical imaging component. The magnetic resonance component comprises a contrast agent that is always activated or on. The optical imaging component comprises an activatable contrast agent or dye that is activated or turned on only in the presence of a particular event. For example, the optical imaging component may be activated by a certain wavelength of light and (1) by the presence of a particular biochem. marker, (2) by enzyme cleavage, or (3) by a change in the temperature or pH of the surrounding medium. These bifunctional detection agents allow both anatomical and functional/metabolic information to be obtained simultaneously.
 IT 674799-57-6P 675150-06-8P 675150-08-0P
 RL: DGN (Diagnostic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (bifunctional detection agents comprises magnetic resonance and optical imaging components)
 RN 674799-57-6 CAPLUS

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN L-Aspartamide, N-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl-oxohexyl]glycyl-L-prolyl-L-leucylglycyl-L-valyl-L-arginylglycyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-yl-oxohexyl]-L-lysylglycyl-N4-[4-[2-[bis(carboxymethyl)amino]-3-[2-[bis(carboxymethyl)amino]ethyl]](carboxymethyl)amino]propyl]phenyl]-, inner salt, acetate, pentapotassium salt (9CI) (CA INDEX NAME)
 CM 1
 CRN 674799-56-5
 CMF C142 H182 N25 O45 S6

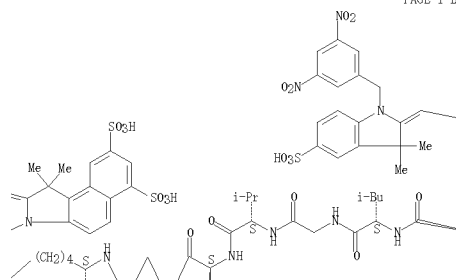
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

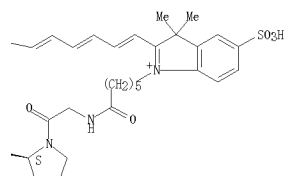


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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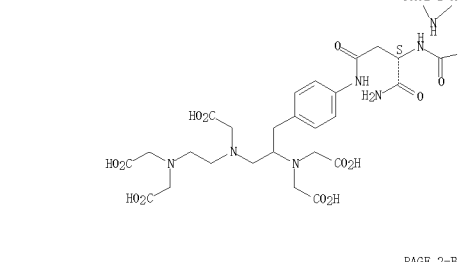


PAGE 1-C

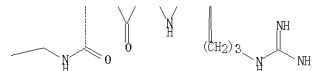


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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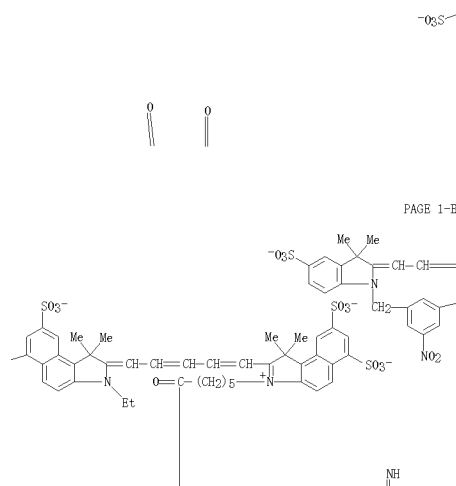
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CRN 71-50-1
CMF C2 H3 O2

RN 675150-06-8 CAPLUS
 CN Gadolinate(6-), aqua[N-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl-oxohexyl]glycyl-L-prolyl-L-leucylglycyl-L-valyl-L-arginylglycyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-yl-oxohexyl]-L-lysylglycyl-N4-[4-[2-[bis(carboxymethyl)amino]-3-[2-[bis(carboxymethyl)amino]ethyl]](carboxymethyl)amino]propyl]phenyl]-L-aspartamidato(11-)]-, potassium acetate (1:5:1) (9CI) (CA INDEX NAME)
 CM 1
 CRN 675150-05-7
 CMF C142 H174 Gd N25 O46 S6
 CCI CCS

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

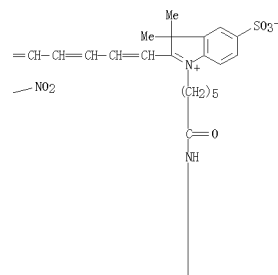
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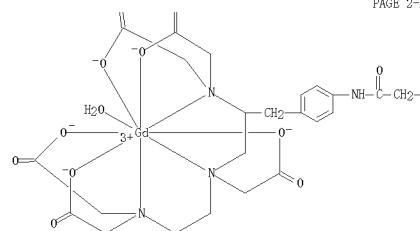
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L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

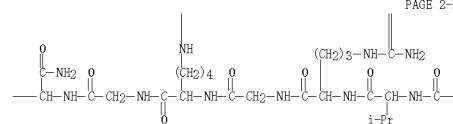
PAGE 1-C



PAGE 2-A

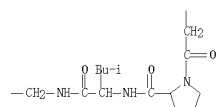


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L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2

CRN 71-50-1
CMF C2 H3 O2

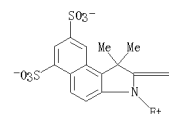
RN 675150-08-0 CAPLUS
CN Gadolinium(6-), aqua[N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-oxohexyl]glycyl-N6-[[[4-[2-[bis[(carboxymethyl)amino-N]-3-[[2-[bis[(carboxymethyl)amino-N]ethyl]][(carboxymethyl)amino-N]propyl]phenyl]amino]thioxomethyl]-L-lysyl]glycyl-L-arginyl-L-valyl]glycyl-L-leucyl-L-prolyl]glycyl-N6-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]-L-lysineamidato(11-)]-], potassium trifluoroacetate (1:5:1) (9CI) (CA INDEX NAME)

CM 1

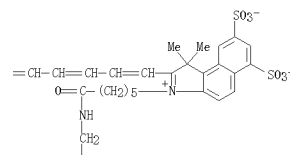
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CMF C145 H181 Gd N26 O45 S7
CCI CCS

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

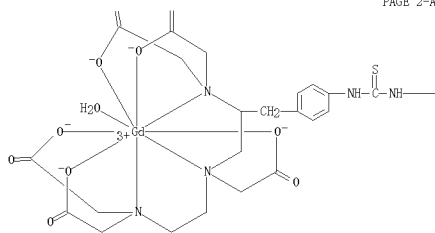


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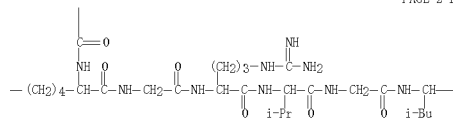


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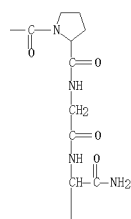
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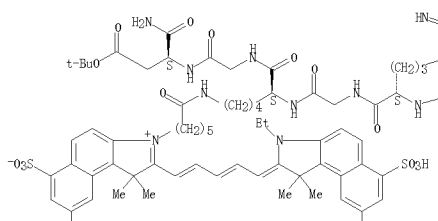
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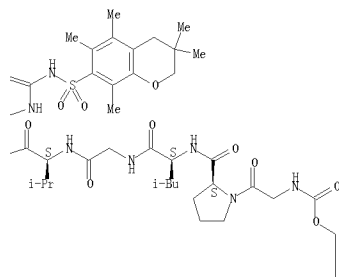
L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
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 (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

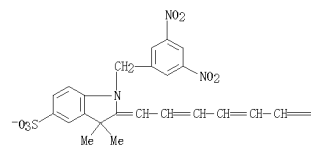


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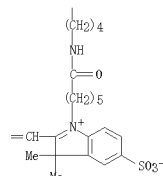


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2

CRN 14477-72-6
 CMF C2 F3 O2



IT 674799-43-ODP, resin-bound 674799-46-SDP, resin-bound
 674799-49-ODP, resin-bound 674799-51-OP
 674799-53-2P 674799-55-4P 674799-62-SDP,
 resin-bound 674799-63-4P 674799-65-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (bifunctional detection agents comprises magnetic resonance and optical
 imaging components)
 RN 674799-43-O CAPLUS
 CN L-e-Asparagine, N-[(9H-fluoren-9-ylmethoxy)carbonyl]glycyl-L-prolyl-

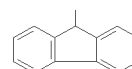
L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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● 3 K

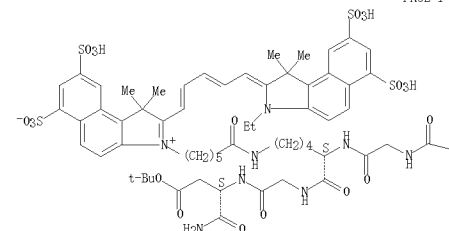
PAGE 2-B



RN 674799-46-3 CAPLUS
 CN L-e-Asparagine, glycyl-L-prolyl-L-leucylglycyl-L-valyl-N5-[[[(3,4-dihydro-3,3,5,6,8-pentamethyl-2H-1-benzopyran-7-yl)sulfonyl]aminoliminomethyl]-L-ornithylglycyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-oxohexyl]-L-lysylglycyl-, inner salt, 1,1-dimethylethyl ester, tripotassium salt (9CI)
 (CA INDEX NAME)

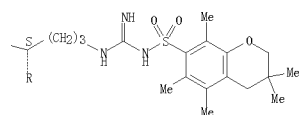
Absolute stereochemistry.
 Double bond geometry unknown.

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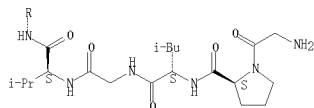


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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● 3 K

RN 674799-49-6 CAPLUS
 CN L-α-Asparagine, N-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]glycyl-L-prolyl-L-leucylglycyl-L-valyl-N5-[[[(3,4-dihydro-3,3,5,6,8-pentamethyl-2H-1-benzopyran-7-yl)sulfonyl]amino]iminomethyl]-L-ornithylglycyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-lysylglycyl-, inner salt, acetate, 1,1-dimethylethyl ester, pentapotassium salt (9CI) (CA INDEX NAME)

CM 1

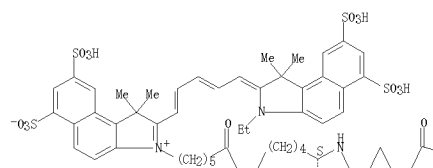
CRN 674799-48-5

CMF C139 H180 N21 O39 S7

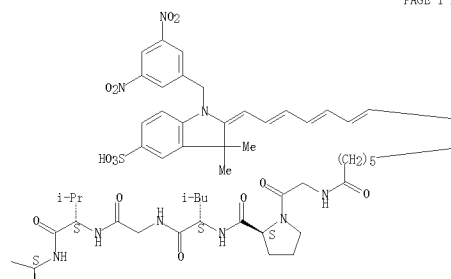
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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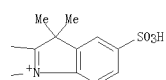


PAGE 1-B

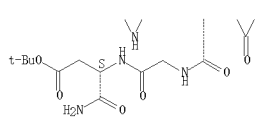


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

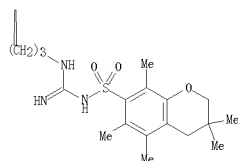
PAGE 1-C



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PAGE 2-B



CM 2

CRN 71-50-1

CMF C2 H3 O2



RN 674799-51-0 CAPLUS
 CN L-α-Asparagine, N-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]glycyl-L-prolyl-L-leucylglycyl-L-valyl-L-arginylglycyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-lysylglycyl-, inner salt, acetate, pentapotassium salt (9CI) (CA INDEX NAME)

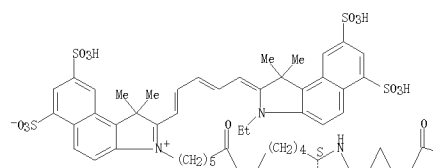
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CRN 674799-50-9

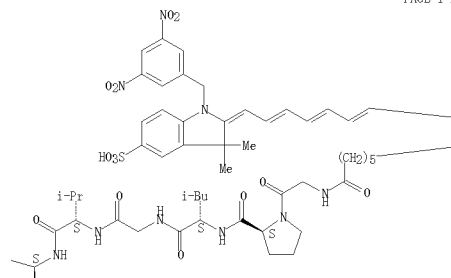
CMF C121 H154 N21 O36 S6

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

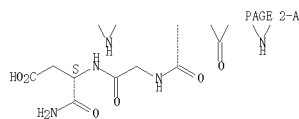
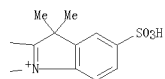


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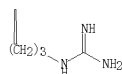


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2
CRN 71-50-1
CMF C2 H3 02

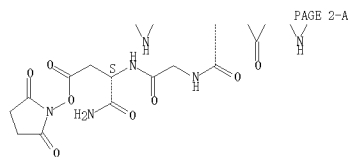
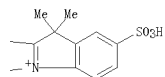


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CN L-Homoserinamide, N-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]glycyl-L-prolyl-L-leucylglycyl-L-valyl-L-arginylglycyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-lysylglycyl-0-(2,5-dioxo-1-pyrrolidinyl)-4-oxo-, inner salt, acetate, pentapotassium salt (9CI) (CA INDEX NAME)

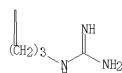
CM 1

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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CM 2
CRN 71-50-1
CMF C2 H3 02



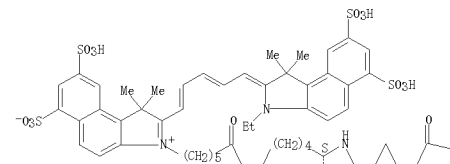
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CN L-Aspartamide, N-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]glycyl-L-prolyl-L-leucylglycyl-L-valyl-L-arginylglycyl-N6-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indolio]-1-oxohexyl]-L-lysylglycyl-N4-[4-[2-[bis[2-(1,1-dimethylethoxy)-2-oxoethyl]amino]ethyl]-2-(1,1-dimethylethoxy)-2-oxoethyl]amino]propyl]phenyl]-, inner salt, acetate, pentapotassium salt (9CI) (CA INDEX NAME)

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

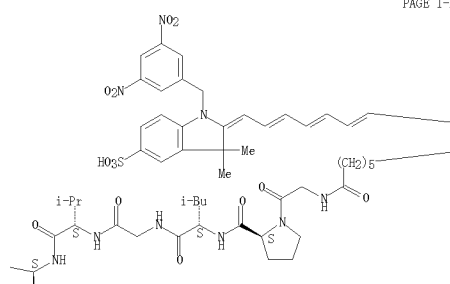
CRN 674799-52-1
CMF C125 H157 N22 O38 S6

Absolute stereochemistry.
Double bond geometry unknown.

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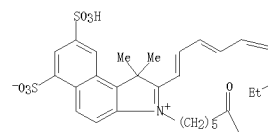
L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CM 1

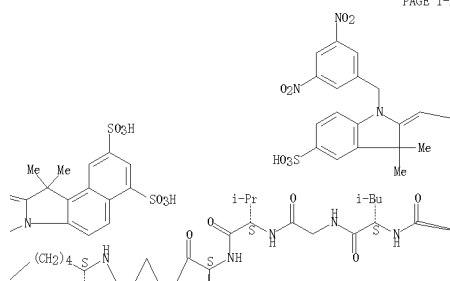
CRN 674799-54-3
CMF C162 H222 N25 O45 S6

Absolute stereochemistry.
Double bond geometry unknown.

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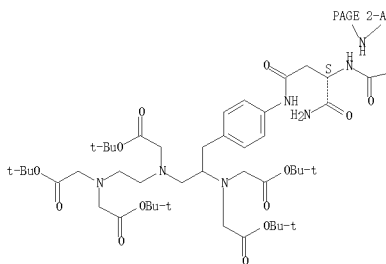
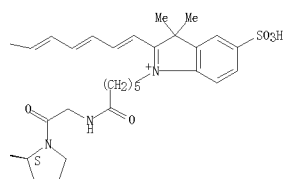


PAGE 1-B

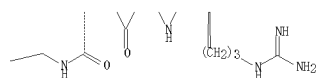


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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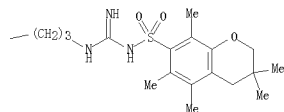


CM 2

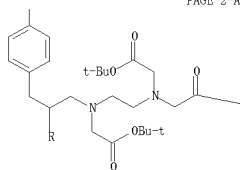
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L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

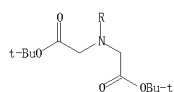


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PAGE 2-B

OBu-t

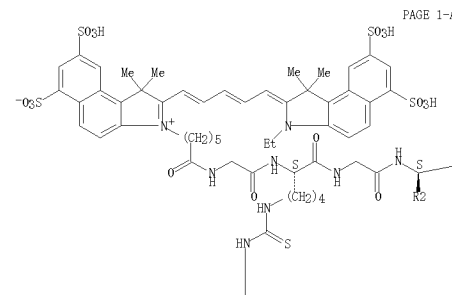


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L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CMF C2 H3 O2

RN 674799-62-3 CAPLUS
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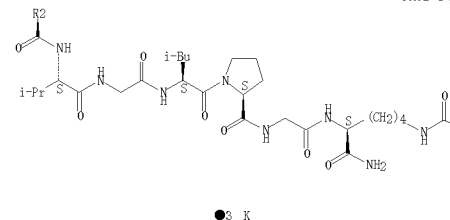
Absolute stereochemistry.
Double bond geometry unknown.



PAGE 1-A

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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● 3 K

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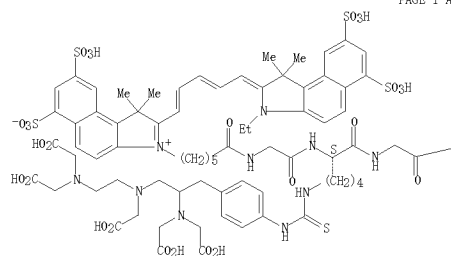
OBu-t

RN 674799-63-4 CAPLUS
CN L-Lysinamide, N-[6-[2-[5-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-oxohexyl]glycyl-N6-[[[4-[2-[bis(carboxymethyl)amino]-3-[[2-[bis(carboxymethyl)amino]ethyl] (carboxymethyl)amino]propyl]phenyl]amino]thioxomethyl]-L-lysylglycyl-L-arginyl-L-valylglycyl-L-leucyl-L-prolylglycyl]-, inner salt, tripotassium salt (9CI) (CA INDEX NAME)

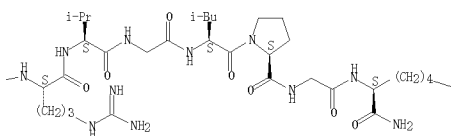
Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

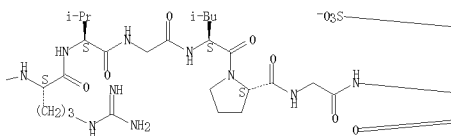


PAGE 1-B

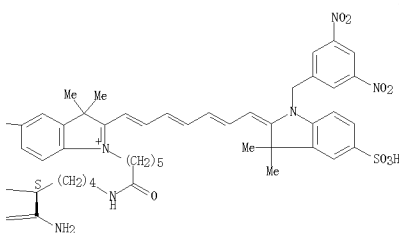


L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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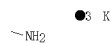


CM 2

CRN 14477-72-6
CMF C2 FS 02

L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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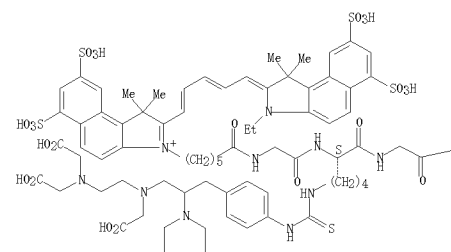
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CN L-Lysineamide, N-[6-[2-[5-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6,8-disulfo-1H-benz[e]indol-1-oxohexyl]glycyl-N6-[[[4-[2-[bis(carboxymethyl)amino]-3-[[2-[bis(carboxymethyl)amino]ethyl] (carboxymethyl)amino]propyl]phenyl]amino]thioxomethyl]-L-lysylglycyl-L-arginyl-L-valylglycyl-L-leucyl-L-prolylglycyl-N6-[6-[2-[7-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]-, inner salt, salt with trifluoroacetic acid (1:1:1), pentapotassium salt (9CI) (CA INDEX NAME)

CM 1

CRN 674799-64-5
CMF C145 H189 N26 O44 S7

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 27 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 AN 2004:182900 CAPLUS
 DN 140:236006
 TI Preparation of modified nucleotides and their enzymic incorporation into DNA
 IN Milton, John; Wu, Xiaolin; Smith, Mark; Brennan, Joseph; Barnes, Colin; Liu, Xiaohai; Ruediger, Silke
 PA Solexa Limited, UK
 SO PCT Int. Appl., 134 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2005/0104437	A1	2005/06/05	US 2002-227131	2002/08/23 <--
US 7057026	E2	2006/06/06		
AU 2003/259350	A	2004/03/11	AU 2003-259350	2003/08/22 <--
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EP 1530578	A2	2005/05/18	EP 2003-792519	2003/08/22
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JP 2006/509040	T	2006/03/16	JP 2006-501219	2006/06/01
US 2007/0166705	A1	2007/07/19	US 2006-525401	2006/06/01
FRAI US 2002-227131	A	2002/08/23		
GB 2002-30037	A	2002/12/23		
GB 2003-3924	A	2003/02/20		
GB 2001-29012	A	2001/12/04		
WO 2003-GB3686	F	2003/08/22		
GI				

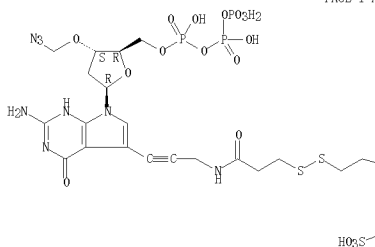
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention provides modified nucleotide or nucleoside mol. comprising a purine or pyrimidine base and a ribose or deoxyribose sugar moiety having a removable 3'-OH blocking group covalently attached thereto, such that the 3'-carbon atom has attached a group of the structure -O-Z wherein Z is any of -C(R')₂-O-R'', -C(R')₂-N(H)R'', -C(R')₂-S-R'' and -C(R')₂-F, wherein each R' is or is part of a removable protecting group; each R' is independently a hydrogen atom, an alkyl, substituted alkyl, arylalkyl, alkenyl, alkynyl, aryl, heteroaryl, heterocyclic, acyl, cyano, alkoxy, aryloxy, hetero-aryloxy or amido group, or a detectable label attached through a linking group; or, (R')₂ represents an alkylidene group of formula =C(R'')₂ wherein each R'' may be the same or different and is selected from the group comprising hydrogen and halogen atoms and alkyl groups; and wherein said mol. may be reacted to yield an intermediate in

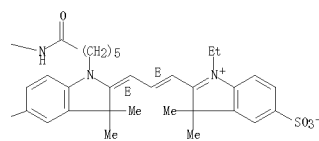
L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 DN 140:236006
 TI Preparation of modified nucleotides and their enzymic incorporation into DNA
 IN Milton, John; Wu, Xiaolin; Smith, Mark; Brennan, Joseph; Barnes, Colin; Liu, Xiaohai; Ruediger, Silke
 PA Solexa Limited, UK
 SO PCT Int. Appl., 134 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 4

Absolute stereochemistry.
 Double bond geometry as shown.

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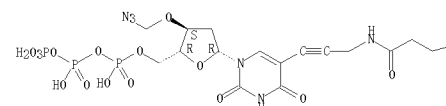
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 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[[2-[[[3-[5-[4-amino-7-[3-O-(azidomethyl)-2-deoxy-5-O-[hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-7H-pyrrolo[2,3-d]pyrimidin-6-yl]-2-propyn-1-yl]amino]-3-oxopropyl]dithioethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

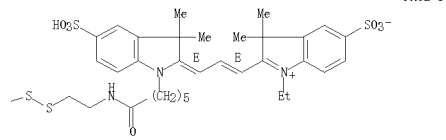
L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 which each R' is exchanged for H or, where Z is -C(R')₂-F, the F is exchanged for OH, SH or NH₂, preferably OH, which intermediate dissociates under aq. conditions to afford a mol. with a free 3'-OH; with the proviso that where Z is -C(R')₂-S-R'', both R' groups are not H. Thus, nucleoside I was prepd. and incorporated in DNA.
 IT 666847-61-6DP, incorporated into DNA 666847-82-1DP, incorporated into DNA 666847-95-6DP, incorporated into DNA 666848-08-4DP, incorporated into DNA
 RL: BPN (Biosynthetic preparation); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (Preparation of modified nucleotides and their enzymic incorporation into DNA)
 RN 666847-61-6 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[[2-[[[3-[1-[3-O-(azidomethyl)-2-deoxy-5-O-[hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propyn-1-yl]amino]-3-oxopropyl]dithioethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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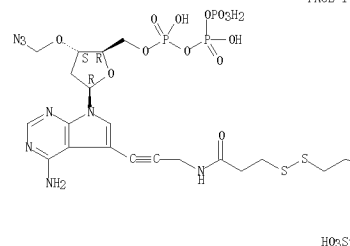
PAGE 1-B



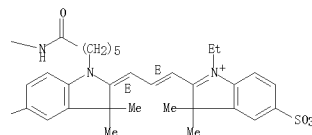
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L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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PAGE 1-B

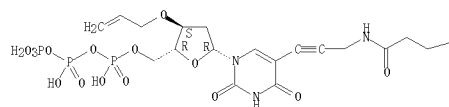


RN 666848-08-4 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[[2-[[[3-[1-[2-deoxy-5-O-[hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-3-O-2-propen-1-yl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propyn-1-yl]amino]-3-oxopropyl]dithioethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

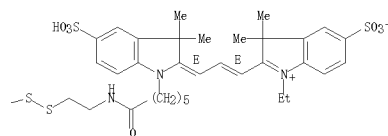
Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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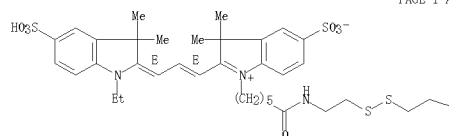


IT 666847-60-5P 666847-61-6P 666847-82-1P
 666847-95-6P 666848-08-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (preparation of modified nucleotides and their enzymic incorporation into
 DNA)

RN 666847-60-5 CAPLUS
 CN 3H-Indolium, 1-[6-[2-[(2-carboxyethyl)dithio]ethylamino]-6-oxohexyl]-2-
 [(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-
 propen-1-yl]-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Double bond geometry as shown.

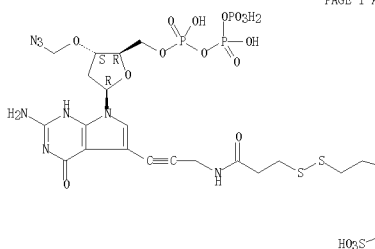
PAGE 1-A



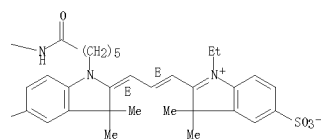
L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-
 yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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RN 666847-95-6 CAPLUS
 CN 3H-Indolium, 2-[(1E,3E)-3-[1-[6-[2-[(3-[5-[4-amino-7-[3-O-(azidomethyl)-
 2-deoxy-5-O-[hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-
 β-D-erythro-pentofuranosyl]-7H-pyrrolo[2,3-d]pyrimidin-6-yl]-2-propyn-
 1-yl]amino]-3-oxopropyl]dithio]ethylamino]-6-oxohexyl]-1,3-dihydro-3,3-
 dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-
 sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

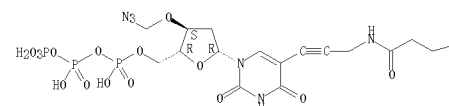
PAGE 1-B

CO2H

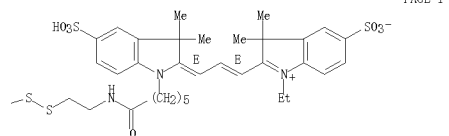
RN 666847-61-6 CAPLUS
 CN 3H-Indolium, 2-[(1E,3E)-3-[1-[6-[2-[(3-[1-[3-O-(azidomethyl)-2-deoxy-
 5-O-[hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-β-D-
 erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-
 propyn-1-yl]amino]-3-oxopropyl]dithio]ethylamino]-6-oxohexyl]-1,3-dihydro-
 3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-
 dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

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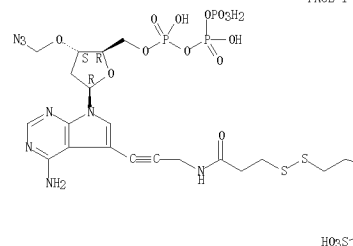
PAGE 1-B



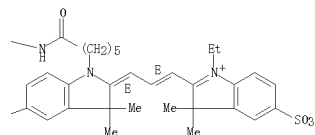
RN 666847-82-1 CAPLUS
 CN 3H-Indolium, 2-[(1E,3E)-3-[1-[6-[2-[(3-[5-[2-amino-7-[3-O-(azidomethyl)-
 2-deoxy-5-O-[hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-
 β-D-erythro-pentofuranosyl]-4,7-dihydro-4-oxo-1H-pyrrolo[2,3-
 d]pyrimidin-6-yl]-2-propyn-1-yl]amino]-3-oxopropyl]dithio]ethylamino]-6-

L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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PAGE 1-B

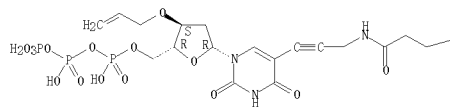


RN 666848-08-4 CAPLUS
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 [hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-3-O-2-propen-1-
 yl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-
 pyrimidinyl]-2-propyn-1-yl]amino]-3-oxopropyl]dithio]ethylamino]-6-
 oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-
 yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

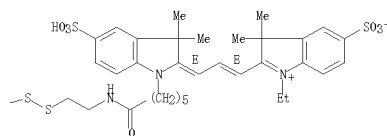
Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

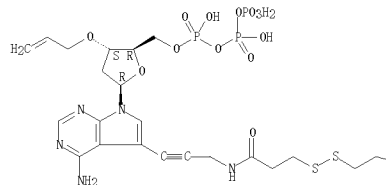


IT 666848-41-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of modified nucleotides and their enzymic incorporation into
 DNA)
 RN 666848-41-5 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[2-[[[3-[4-amino-7-[2-deoxy-5-O-
 [hydroxy[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-3-O-2-propen-1-
 yl]-β-D-erythro-pentofuranosyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-
 propyn-1-yl]amino]-3-oxopropyl]dithioethyl]amino]-6-oxohexyl]-1,3-dihydro-
 3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-
 dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

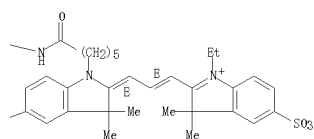
Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 28 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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HO₃S⁻

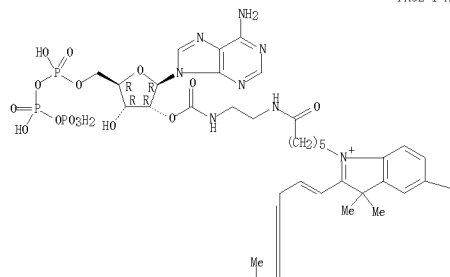
PAGE 1-B



L6 ANSWER 29 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:106957 CAPLUS
 DN 140:316979
 TI Chemomechanical coupling in F1-ATPase revealed by simultaneous observation
 of nucleotide kinetics and rotation
 AU Nishizaka, Takayuki; Oiwa, Kazuhiro; Noli, Hiroyuki; Kimura, Shigeki;
 Muneyuki, Eiro; Yoshida, Masasuke; Kinosita, Kazuhiko
 CS Protein Biophysics Group, Kansai Advanced Research Center, Iwako 588-2,
 Nishi-ku, Kobe, 651-2492, Japan
 SO Nature Structural & Molecular Biology (2004), 11(2), 142-148
 CODEN: NSMBCU; ISSN: 1545-9993
 PB Nature Publishing Group
 DT Journal
 LA English
 AB F1-ATPase is a rotary mol. motor in which unidirectional rotation of the
 central γ subunit is powered by ATP hydrolysis in three catalytic
 sites arranged 120° apart around γ. To study how hydrolysis
 reactions produce mech. rotation, we observed rotation under an optical
 microscope to see which of the three sites bound and released a
 fluorescent ATP analog. Assuming that the analog mimics authentic ATP,
 the following scheme emerges: (i) in the ATP-waiting state, one site,
 dictated by the orientation of γ, is empty, whereas the other two
 bind a nucleotide; (ii) ATP binding to the empty site drives an
 approx. 80° rotation of γ; (iii) this triggers a reaction(s),
 hydrolysis and/or phosphate release, but not ADP release in the site that
 bound ATP one step earlier; (iv) completion of this reaction induces
 further approx. 40° rotation.
 IT 288628-77-3
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (ATP binding to empty binding site of F1-ATPase promotes simultaneous
 observation of nucleotide kinetics and rotation)
 RN 288628-77-3 CAPLUS
 CN Adenosine 5'-(tetrahydrogen triphosphate), 2'-[[[2-[[[6-[2-[3-[1-ethyl-1,3-
 dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-
 5-sulfo-3H-indol-1-ylidene]amino]ethyl]carbamate] (9CI) (CA INDEX
 NAME)

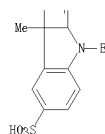
Absolute stereochemistry.
 Double bond geometry unknown.

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L6 ANSWER 29 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

SO₃⁻

PAGE 2-A

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 30 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:100690 CAPLUS
 DN 140:146515
 TI Site-specific labeling of proteins using cyanine dye reporters
 IN Cotton, Graham John
 PA UK
 SO U.S. Pat. Appl. Publ., 13 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20040023408	A1	20040205	US 2002-241333	20020911 <--
CA 2493309	A1	20040205	CA 2003-249309	20030728 <--
WO 2004011556	A1	20040205	WO 2003-GB5196	20030728 <--
W: AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GB, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KS, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003246957	A1	20040216	AU 2003-246957	20030728 <--
EP 1525266	A1	20050427	EP 2003-771163	20030728
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 200554739	T	20051117	JP 2004-523938	20030728
US 20050239144	A1	20051027	US 2005-522675	20050127
PRAI GB 2002-17556	A	20020730		
US 2002-241333	A	20020911		
WO 2003-GB3196	#	20030728		

OS MARPAT 140:146515

AB The invention provides new cyanine dye reagents and methods that afford direct attachment of the cyanine dye reporter to either the N-terminus or C-terminus of a synthetic or recombinant peptide or protein and their derivs., in a site-specific manner, coupled with purification of the resultant labeled mol. Comps. D-L1-M(P)-1-2-B (D is a fluorescent cyanine dye; B is a bioaffinity tag; F is a chemical entity which includes a target bonding group selected from the group consisting of thioester groups and 1,2-aminothiol groups; M is a group adapted for attaching to F; L1, L2 are groups containing 1-40 linked atoms selected from carbon atoms which may optionally include one or more groups selected from NH, alkylimino, O, CH₂CH, CONH, or phenylenyl) are claimed. Thus, e-D-desthiobiotin-e-Cy5-L-lysine-MESNA (Cy5 is a dye and MESNA is HSCH₂CH₂SO₃H) was prepared and used to label N-terminal cysteine Grb2SH2.

IT 312961-84-5P 312961-85-6P 653605-43-7P

653605-44-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(site-specific labeling of proteins using cyanine dye reporters)

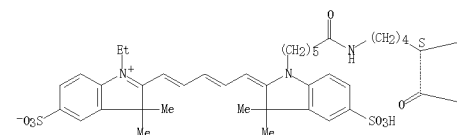
RN 312961-84-5 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[(5S)-5-carboxy-5-[[[(9H-fluoren-9-ylmethoxy)carbonyl]amino]pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

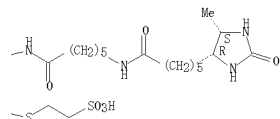
Absolute stereochemistry.

L6 ANSWER 30 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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PAGE 1-B



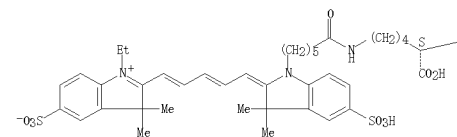
RN 653605-44-8 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[(5S)-5-carboxy-5-[[[6-[[[4R,5S)-5-methyl-2-oxo-4-imidazolidinyl]-1-oxohexyl]amino]-1-oxohexyl]amino]pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

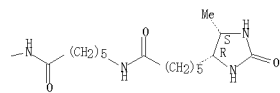
Absolute stereochemistry.

Double bond geometry unknown.

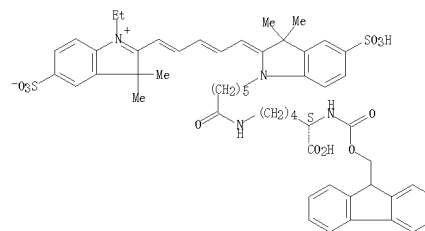
PAGE 1-A



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L6 ANSWER 30 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 Double bond geometry unknown.



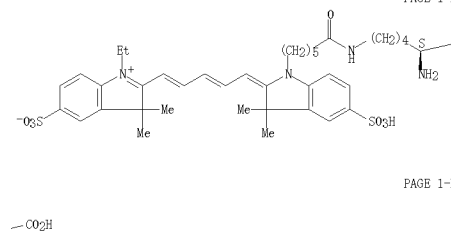
RN 312961-85-6 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[(5S)-5-amino-5-carboxypentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

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RN 653605-43-7 CAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-[[[(5S)-5-[[[6-[[[4R,5S)-5-methyl-2-oxo-4-imidazolidinyl]-1-oxohexyl]amino]-1-oxohexyl]amino]-6-oxo-6-[[2-sulfoethyl]thio]hexyl]amino]-6-oxohexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

L6 ANSWER 30 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

IT 653605-43-7DF, conjugate with an N-terminal cysteine derivative of Grb2 protein SH2 domain
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (site-specific labeling of proteins using cyanine dye reporters)

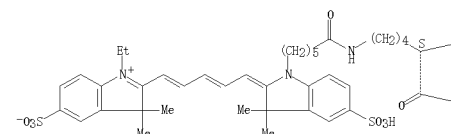
RN 653605-43-7 CAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-[[[(5S)-5-[[[6-[[[4R,5S)-5-methyl-2-oxo-4-imidazolidinyl]-1-oxohexyl]amino]-1-oxohexyl]amino]-6-oxo-6-[[2-sulfoethyl]thio]hexyl]amino]-6-oxohexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

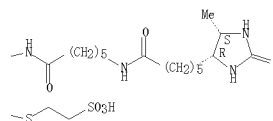
Absolute stereochemistry.

Double bond geometry unknown.

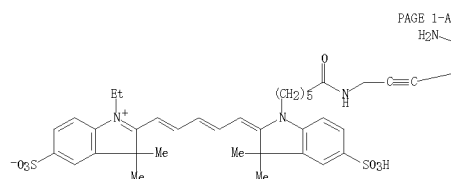
PAGE 1-A



PAGE 1-B

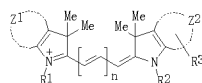


L6 ANSWER 31 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:97032 CAPLUS
 DN 141:327482
 TI Real-Time Detection of Polymerase Activity Using Supercritical Angle Fluorescence
 AU Krieg, Alexander; Ruckstuhl, Thomas; Laib, Stephan; Seeger, Stefan
 CS Physikalisches-Chemisches Institut, Universitaet Zuerich, Zurich, 8057, Switz.
 SO Journal of Fluorescence (2004), 14(1), 75-78
 CODEN: JOFLEN; ISSN: 1053-0609
 PB Kluwer Academic/Plenum Publishers
 DT Journal
 LA English
 AB We investigated the incorporation efficiencies of different fluorescently labeled dNTPs with polymerases by complementary strand synthesis. For this reason single stranded DNA was immobilized on a coverslip and the increase of fluorescence due to the synthesis of the corresponding strand with tagged dNTPs was detected with a supercrit. angle fluorescence biosensor in real-time. By comparison of the observed signal intensities it was possible to conclude that the system Cy5-dCTP-Klenow (exonuclease free) fragment gives the best incorporation yield of the investigated enzymes and dNTPs.
 IT 325747-77-1, FluoroLink Cy5-dCTP
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (real-time detection of polymerase activity using supercrit. angle fluorescence)
 RN 325747-77-1 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[3-[4-amino-1-[2-deoxy-5-O-[(hydroxy[(hydroxyphosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentafuran-1-yl]-1,2-dihydro-3-oxo-6-pyrimidinyl]-2-proxyn-1-yl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)
 Absolute stereochemistry.
 Double bond geometry unknown.



L6 ANSWER 32 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:41759 CAPLUS
 DN 140:90327
 TI Cysteine-binding fluorescent cyanine dyes for saturation labelling of proteins and application in 2D-gel electrophoresis
 AU Williams, Karen; Stone, Timothy; Simmonds, Adrian Christopher; Sweet, Alison Claire; Fowler, Susan Janet
 PA Amersham Biosciences UK Limited, UK
 SO FCT Int. Appl., 58 pp.
 CODEN: FIKXD2
 DT Patent
 LA English
 LA FAN.CNT 1

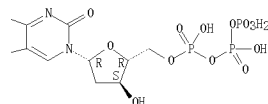
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004005933	A1	20040115	WO 2002-GB3142	20020708 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2491692	A1	20040115	CA 2002-2491692	20020708 <--
AU 2002317958	A1	20040123	AU 2002-317958	20020708 <--
AU 2002317958	B2	20070712		
EP 1520176	A1	20050406	EP 2002-747568	20020708
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
CN 1650168	A	20050803	CN 2002-829498	20020708
JP 2005532543	T	20051027	JP 2004-518895	20020708
US 20060233462	A1	20051020	US 2005-519433	20050623
PRAI WO 2002-GB3142	W	20020708		
OS MARPAT 140:90327				
GI				



AB A matched set of fluorescent dyes is provided, wherein each dye of the set is capable of covalent attachment to a protein and wherein each of the dyes has a mol. structure and a charge that is matched one with the other, such that relative electrophoretic mobility of a protein labeled with one dye of the set is the same as the electrophoretic mobility of the protein labeled with a different dye of the set. The matched set comprises at least two different fluorescent dyes of formula (I): wherein n is 1, 2, or 3; Z1 and Z2 independently represent the carbon atoms necessary to complete a Ph or naphthyl ring system; one of groups R1 and R2 is a target bonding group; remaining group R1 or R2 is selected from -(CH2)4-W or -(CH2)r-H; group R3 is hydrogen, except when either R1 or R2 is -(CH2)r-H, in which case R3 is W; and W is selected from sulfonic acid and sulfonate. The invention also provides a method for saturation labeling of a protein with a fluorescent dye so as to label all available target amino acid, suitably cysteine, residues in the protein, thereby giving a single population of labeled protein mols.

L6 ANSWER 31 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

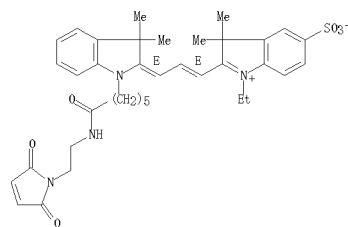


RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 32 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

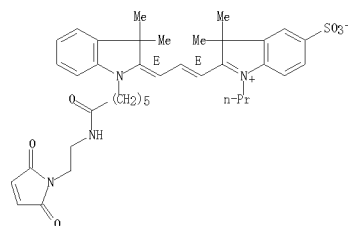
IT 644978-91-6P 644978-93-8P 644978-94-9P
 644978-95-0P 644978-96-1P 644978-97-2P
 644978-98-3P 644978-99-4P 644979-00-0P
 RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses) (cysteine-binding fluorescent cyanine dyes for saturation labeling of proteins and application in 2D-gel electrophoresis)
 RN 644978-91-6 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Double bond geometry as shown.



RN 644978-93-8 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E)-3-[1-[6-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

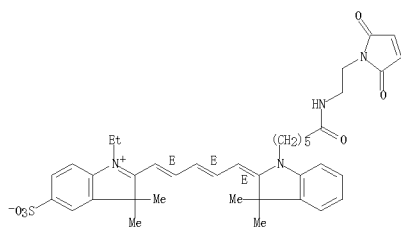
Double bond geometry as shown.



RN 644978-94-9 CAPLUS
 CN 3H-Indolium, 2-[[[(1E,3E,5E)-5-[1-[6-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

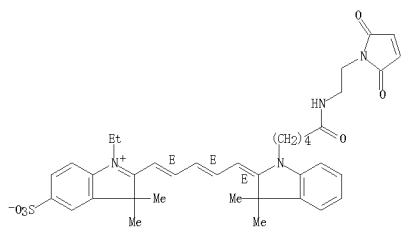
L6 ANSWER 32 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

Double bond geometry as shown.



RN 644978-95-0 CAPLUS
CN 3H-Indolium, 2-[[1E,3E,5E]-5-[1-[5-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

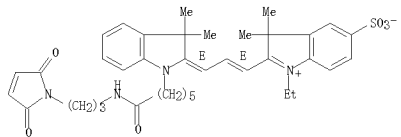
Double bond geometry as shown.



RN 644978-96-1 CAPLUS
CN 3H-Indolium, 2-[[1E,3E]-3-[1-[6-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-3,3-dimethyl-1-(4-sulfonyl)-, inner salt (CA INDEX NAME)

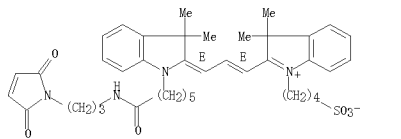
Double bond geometry as shown.

L6 ANSWER 32 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



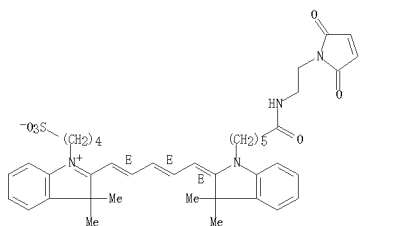
RN 644978-99-4 CAPLUS
CN 3H-Indolium, 2-[[1E,3E]-3-[1-[6-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-3,3-dimethyl-1-(4-sulfonyl)-, inner salt (CA INDEX NAME)

Double bond geometry as shown.



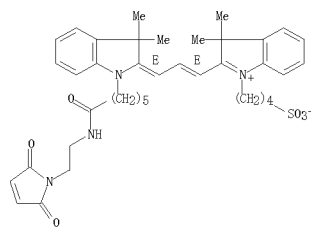
RN 644979-00-0 CAPLUS
CN 3H-Indolium, 2-[[1E,3E,5E]-5-[1-[6-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-3,3-dimethyl-1-(4-sulfonyl)-, inner salt (CA INDEX NAME)

Double bond geometry as shown.



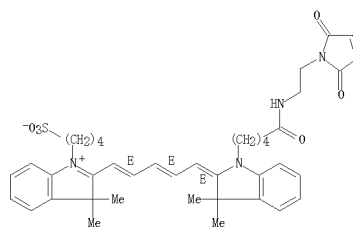
RE. CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 32 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 644978-97-2 CAPLUS
CN 3H-Indolium, 2-[[1E,3E,5E]-5-[1-[5-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-3,3-dimethyl-1-(4-sulfonyl)-, inner salt (CA INDEX NAME)

Double bond geometry as shown.



RN 644978-98-3 CAPLUS
CN 3H-Indolium, 2-[[1E,3E]-3-[1-[6-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Double bond geometry as shown.

L6 ANSWER 33 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:757966 CAPLUS
DN 139:273227
TI Fluorescent reagent containing fluorescent dye group and intercalate group for selectively detecting double-stranded nucleic acid
IN Takenaka, Shigeori; Ueyama, Hiroyuki; Takagi, Makoto
PA Kyushu Tlo Company, Limited, Japan
SO PCT Int. Appl., 45 pp.
CODEN: PIXXD2

DT Patent
LA Japanese
FAN. CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003:079022	A1	2003:0925	WO 2003-JP3258	2003:0318 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, NG, SN, TD, TG				
JP 2006:289810	A	2006:1020	JP 2002-74068	2002:0318
AU 2003:220659	A1	2003:0929	AU 2003-220659	2003:0318 <--
PRAI JP 2002-74068	A	2002:0318		
WO 2003-JP3258	W	2003:0318		

OS MARPAT 139:273227

AB A fluorescent reagent containing a fluorescent dye group and an intercalate group is provided, with which double-stranded nucleic acid is selectively detected. When this fluorescent reagent comes into contact with a double-stranded DNA or a double-stranded RNA, the intercalate group in the reagent mol. intercalates between the base pairs in the double-stranded nucleic acid. As a result, the quenching caused by stacking between the fluorescent dye group and the intercalate group in the reagent mol. is broken off, and thereby, the fluorescent intensity is elevated. Thus, the double-stranded DNA or the double-stranded RNA can be selectively detected.

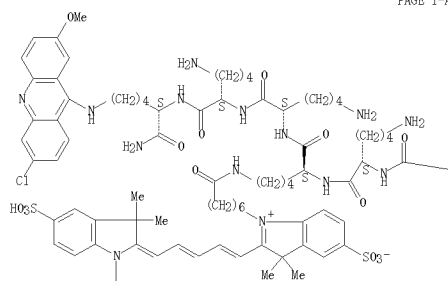
IT 604784-77-2P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(Fluorescent reagent containing fluorescent dye group and intercalate group for selectively detecting double-stranded nucleic acid)

RN 604784-77-2 CAPLUS
CN L-Lysinamide, N2-acetyl-N6-(6-chloro-2-methoxy-9-acridinyl)-L-lysyl-L-lysyl-L-lysyl-N6-[7-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxoethyl]-L-lysyl-L-lysyl-L-lysyl-N6-(6-chloro-2-methoxy-9-acridinyl)-, inner salt (9CI) (CA INDEX NAME)

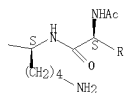
Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 33 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



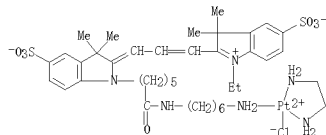
PAGE 1-B

L6 ANSWER 34 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:705513 CAPLUS
DN 139:359376

TI Fluorescence properties, thermal duplex stability, and kinetics of formation of cyanin platinum DNAs
AU van de Rijke, Frans M.; Heetebrij, Robert J.; Talman, Eduard G.; Tanke, Hans J.; Raap, Anton K.
CS Department Molecular Cell Biology, Leiden University Medical Centre, AL Leiden, 2355, Neth.
SO Analytical Biochemistry (2003), 321(1), 71-78
CODEN: ANBCA2; ISSN: 0003-2697
PB Elsevier Science
DT Journal
LA English
AB Fluorescent and haptized, monofunctionally binding platinum compds. are increasingly used for chemical labeling nucleic acids for hybridization detection purposes. Here we analyze in detail the effect of labeling d. of the cyanin-3 and -5 platinum DNA adducts on fluorescence and thermal stability. We also analyzed the kinetics of the reaction of the cyanin platinum compds. with DNA. The data provided are important for the design of optimal platinum DNA labeling and hybridization conditions for fluorescence hybridization applications.

IT 595568-50-6D, reaction products with DNA 595568-51-7D, reaction products with DNA
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(Fluorescence properties, thermal duplex stability, and kinetics of formation of cyanin platinum DNAs)

RN 595568-50-6 CAPLUS
CN Platinum, [2-[3-[1-[6-[[6-(amino-κN)hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indoliumato(2-)]chloro(1,2-ethanediamine-κN,κN)-, monohydrochloride, (SP-4-3)- (9CI) (CA INDEX NAME)

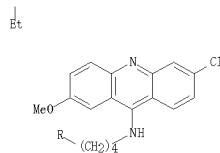


● HCl

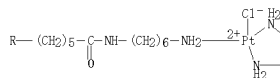
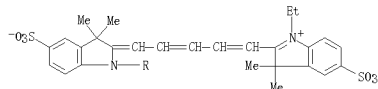
RN 595568-51-7 CAPLUS
CN Platinum, [2-[3-[1-[6-[[6-(amino-κN)hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indoliumato(2-)]chloro(1,2-ethanediamine-κN,κN)-, monohydrochloride, (SP-4-3)- (9CI) (CA INDEX NAME)

L6 ANSWER 33 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 2-A

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 34 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● HCl

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 35 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:684827 CAPLUS
DN 140:283600

TI Self-assembled nanoscale biosensors based on quantum dot FRET donors
AU Medintz, Igor L.; Clapp, Aaron R.; Mattoussi, Hedi; Goldman, Ellen R.;
Fisher, Brent; Mauro, J. Matthew

CS Center for Bio/Molecular Science and Engineering, US Naval Research
Laboratory, Washington, DC, 20375, USA

S0 Nature Materials (2003), 2(9), 630-638

CODEN: NMAAGR; ISSN: 1476-1122

PB Nature Publishing Group

DT Journal

LA English

AB The potential of luminescent semiconductor quantum dots (QDs) to enable development of hybrid inorg.-bioreceptor sensing materials has remained largely unrealized. We report the design, formation and testing of QD-protein assemblies that function as chemical sensors. In these assemblies, multiple copies of Escherichia coli maltose-binding protein (MBP) coordinate to each QD by a C-terminal oligohistidine segment and function as sugar receptors. Sensors are self-assembled in solution in a controllable manner. In one configuration, a β -cyclodextrin-QSY9 dark quencher conjugate bound in the MBP saccharide binding site results in fluorescence resonance energy transfer (FRET) quenching of QD photoluminescence. Added maltose displaces the β -cyclodextrin-QSY9, and QD photoluminescence increases in a systematic manner. A second maltose sensor assembly consists of QDs coupled with Cy3-labeled MBP bound to β -cyclodextrin-Cy3.5. In this case, the QD donor drives sensor function through a two-step FRET mechanism that overcomes inherent QD donor-acceptor distance limitations. Quantum dot-biomol. assemblies constructed using these methods may facilitate development of new hybrid sensing materials.

IT 675573-93-0

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Self-assembled nanoscale biosensors based on quantum dot FRET donors)

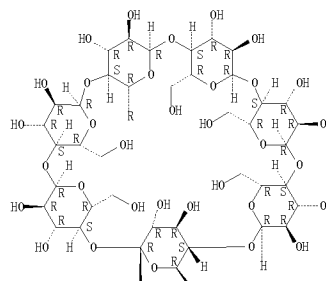
RN 675573-93-0 CAPLUS

CN β -Cyclodextrin, 6A-deoxy-6A-[[6-[2-[3-(3-ethyl-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene)-1-propenyl]-1,1-dimethyl-6,8-disulfo-3H-benz[e]indol-1-oxohexyl]amino]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 35 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

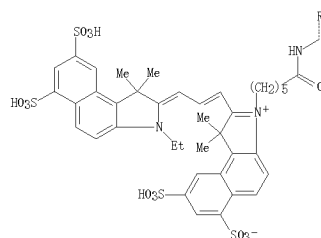
PAGE 1-A



PAGE 2-A



PAGE 3-A



RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 35 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L6 ANSWER 36 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:679367 CAPLUS

DN 139:334950

TI A fluorescence resonance energy transfer sensor based on maltose binding protein

AU Medintz, Igor L.; Goldman, Ellen R.; Lassman, Michael E.; Mauro, J. Matthew

CS Center for Bio/Molecular Science and Engineering, U.S. Naval Research Laboratory, Washington, DC, 20375, USA

S0 Bioconjugate Chemistry (2003), 14(5), 909-918

CODEN: BCHBES; ISSN: 1043-1802

PB American Chemical Society

DT Journal

LA English

AB A fluorescence resonance energy-transfer (FRET) sensing system for maltose based on E. coli maltose binding protein (MBP) is demonstrated. The FRET donor portion of the sensing system consists of MBP modified with long wavelength-excitable cyanine dyes (Cy3 or Cy3.5). The novel acceptor portion of the sensor consists of β -cyclodextrin (β -CD) modified with either the cyanine dye Cy5 or the dark quencher QSY9. Binding of the modified β -CD to dye-conjugated MBP results in assembly of the FRET complex. Added maltose displaces the β -CD-dye adduct and disrupts the FRET complex, resulting in a direct change in fluorescence of the donor moiety. In the use of these FRET pairs, MBP dissociation values for maltose were estimated (0.14-2.90 μ M). Maltose limits of detection were in the 50-100 nM range.

IT 616207-79-5 616207-80-8

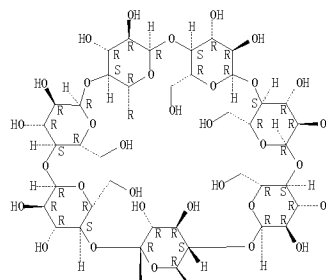
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(electron acceptor; fluorescence resonance energy transfer sensor based on maltose binding protein)

RN 616207-79-5 CAPLUS

CN β -Cyclodextrin, 6A-deoxy-6A-[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

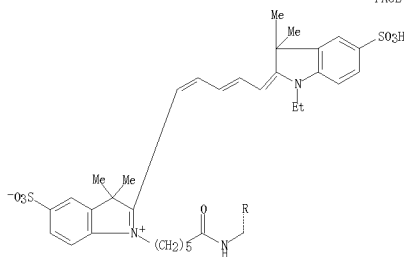
PAGE 1-A



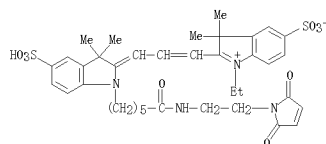
L6 ANSWER 36 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
PAGE 2-A



PAGE 3-A

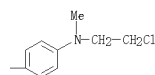


RN 616207-90-8 CAPLUS
CN 3H-Indolium, 2-[3-[1-[6-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethylamino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)



RE,CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 37 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
PAGE 1-B



CM 2

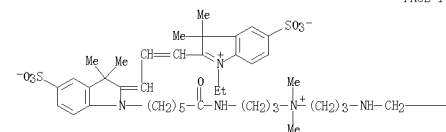
CRN 64-19-7
CMF C2 H4 O2



RE,CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

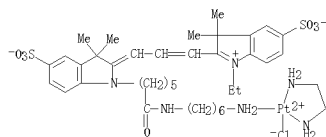
L6 ANSWER 37 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:597738 CAPLUS
DN 139:302576
TI Efficient in vitro and in vivo expression of covalently modified plasmid DNA
AU Stattum, Paul S.; Loomis, Aaron G.; Machnik, Kira J.; Watt, Mary-Anne; Duzeski, Jennifer L.; Budker, Vladimir G.; Wolff, Jon A.; Hagstrom, James E.
CS Mirus Corporation, Madison, WI, 53719, USA
S0 Molecular Therapy (2003), 8(2), 265-263
CODEN: MTOHCK; ISSN: 1525-0016
PB Elsevier
DT Journal
LA English
AB The tracking of plasmid DNA (pDNA) movement within cells requires the attachment of labels to the DNA in a manner such that: (a) the pDNA remains intact during the labeling process and (b) the labels remain stably attached to the DNA. Keeping these two criteria in mind, we have recently developed a series of alkylating reagents that facilitate the one-step, covalent attachment of compds. directly onto nucleic acids in a nondestructive manner. Using these DNA-alkylating reagents, we have attached a wide range of both fluorescent and nonfluorescent reporter mols. onto pDNAs. We now show that even with the covalent attachment of various marker compds., the pDNA remains expression competent. The ability to create labeled, expression-competent DNA allows for the simultaneous tracking of both pDNA location and reporter gene expression within living or fixed cells.
IT 611199-21-4
RL: ARU (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(DNA-alkylating reagents used to attached a wide range of both fluorescent and nonfluorescent reporter mols. onto pDNAs)
RN 611199-21-4 CAPLUS
CN 3H-Indolium, 2-[3-[1-[6-[2-[[[4-[(2-chloroethyl)methylamino]phenyl]methyl]amino]propyl]dimethylammonio]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, bis(inner salt), acetate (1:?) (CA INDEX NAME)
CM 1
CRN 611199-20-3
CMF C49 H69 Cl N6 O7 S2

PAGE 1-A



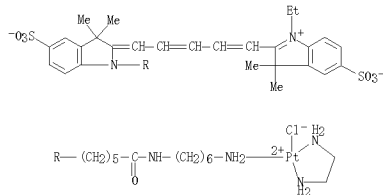
L6 ANSWER 38 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:252524 CAPLUS
DN 139:225076
TI Platinum(II)-based coordination compounds as nucleic acid labeling reagents: Synthesis, reactivity, and applications in hybridization assays
AU Heetebrilj, R. J.; Talman, E. G.; van Velsen, M. A.; van Gijlswijk, R. P. M.; Snoeijers, S. S.; Schalk, M.; Wiegant, J.; van den Rijke, F.; Kerkhoven, R. M.; Raap, A. K.; Tanke, H. J.; Reedijk, J.; Houthoff, H.-J.
CS Leiden Institute of Chemistry Gorlaeus Laboratories, Leiden University, Leiden, 2300 RA, Neth.
S0 ChemBioChem (2003), 4(7), 573-583
CODEN: CBCHFX; ISSN: 1439-4227
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB The synthesis, characterization, and mol. interactions of platinum(II) coordination compds., which contain a distal nonradioactive reporter mol., with mono- and polynucleotides are described. A [Pt(II)(en)(NH₂(CH₂)₆NH-tBoc)Cl](NO₃) (en = ethylenediamine) entity has been coupled, after removal of the tBoc group, to a number of hapten and fluorophore mols. through succinimide derivs. The influence of the various tethered reporter groups within these complexes on the reactivity towards GMP (5'-GMP), as a model for polynucleotide sequences, was investigated to shed light on the use of these reagents in hybridization assays. Reactivity turned out to be strongly dictated by the chemical nature of the distal reporter mol. present. At pH 7.0 the sequence of reactivity is cationic ≈ aromatic (stacking) > neutral > anionic; there is approx. an order of magnitude difference between the fastest reacting complex (k = 10.2 ± 10.2 M⁻¹ S⁻¹) and the slowest reacting complex (k = 0.93 ± 10.2 M⁻¹ S⁻¹) under these conditions. Platination of an oligodeoxynucleotide (30-mer), dsDNA, or an RNA transcript, shows that a Pt/nucleotide ratio between 1:10 and 1:20 (established by using flameless atomic absorption spectroscopy) results in probes with excellent hybridization characteristics. In terms of applicability and detection limits these platinated nucleic acid probes perform equally well compared to conventionally generated nucleic acid probes, i.e., through enzymic incorporation of covalently labeled nucleotide triphosphates. Applications of these reagents to in situ hybridization assays and gene expression profiling on microarrays illustrate the potential of these monofunctional binding platinum triamine compds.
IT 595568-50-6P 595568-51-7P
RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)
(Synthesis, reactivity, and applications in hybridization assays of platinum(II)-based coordination compds. nucleic acid labeling reagents)
RN 595568-50-6 CAPLUS
CN Platinum, [2-[3-[1-[6-[[(6-(amino-κN)hexylamino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indoliumato(2-)]chloro(1,1,2-ethanediamine-κN,κN)-, monohydrochloride, (SP-4-3)- (9Cl) (CA INDEX NAME)

L6 ANSWER 39 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)



● HCl

RN 595568-51-7 CAPLUS
CN Platinum, [2-[5-[1-[6-[[[6-(amino-κN)hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indoliumato(2-)]chloro(1,2-ethanediamine-κN,κN)-], monohydrochloride, (SP-4-3)- (9C1) (CA INDEX NAME)



● HCl

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

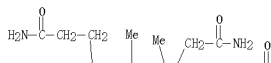
L6 ANSWER 39 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 2003:496380 CAPLUS
DN 140:266969
TI Minimally invasive lymphatic mapping using fluorescently labeled vitamin B12
AU McGreevy, James M.; Cannon, Michelle J.; Grissom, Charles B.
CS Departments of Surgery, University of Utah, Salt Lake City, UT, 84132, USA
S0 Journal of Surgical Research (2003), 111(1), 38-44
CODEN JSRGAR; ISSN: 0022-4804
PB Elsevier Science
DT Journal
LA English
AB Background: We examined the usefulness of a new agent in the mapping and dissection of inguinal lymph nodes in the pig. Cy5-cobalamin bioconjugate is blue under visible light and fluoresces brilliant red with laser stimulation. The wavelength of the emitted red light is sufficiently long that it is visible through blood, s.c. fat, and fascia. Currently available surgical techniques of minimally invasive dissection are well suited for using fluorescent detection in a dark operating field with minimal modification of an existing Hopkins surgical telescope. Materials and methods: We tested this concept in the live post-adolescent, female, nonlactating pig (30 kg). We insufflated the s.c. tissue over the groin and inserted three ports (1 x 10 mm and 2 x 5 mm) for dissection. We injected the Cy5-cobalamin bioconjugate in a dermal location on the hind limb. A HeNe laser stimulated the CobalaFluor in the lymphatics and the emitted fluorescence passed through a holog. notch filter to a three-chip camera. Results: Under white light, the lymphatic trunks and the sentinel node were visualized within minutes of injection. Both the lymphatic trunks and the node fluoresced bright red under stimulation with red laser light. Conclusions: These preliminary studies establish the potential usefulness of this new agent in lymphatic mapping. This novel technol. might be useful in visualizing cancers that spread to regional lymph nodes. This technique has the potential to map the lymphatic drainage and to identify the presence of malignant cells in that drainage with currently available minimally invasive technol.

IT 674353-91-4P
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); DGN (Diagnostic use); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(minimally invasive lymphatic mapping using fluorescently labeled vitamin B12 and laparoscopy)

RN 674353-91-4 CAPLUS
CN Cobinamide, Co-(cyano-κC)-, dihydrogen phosphate (ester), bis(inner salt), 3'-ester with [1-[5-O-[[[6-[2-[5-(1-ethyl-3,3-dimethyl-5-sulfo-3H-indolium-2-yl)-2,4-pentadienyl]-3,3-dihydro-3,3-dimethyl-5-sulfo-1H-indol-1-yl]-1-oxohexyl]amino]hexyl]amino]carbonyl]-1-β-D-ribofuranosyl]-5,6-dimethyl-1H-benzimidazole-κNS] (9C1) (CA INDEX NAME)

L6 ANSWER 39 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)

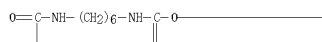
PAGE 1-B



PAGE 2-A

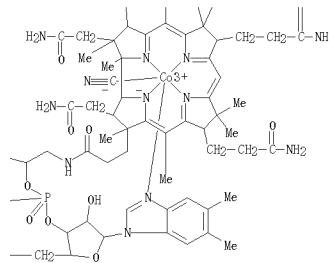
Me—

—O—

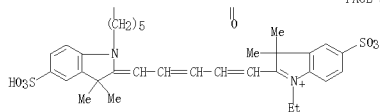


L6 ANSWER 39 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)

PAGE 2-B



PAGE 3-A



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

LG ANSWER 40 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:454341 CAPLUS
 DN 139:31750
 TI Nucleotide analogs containing fluorophore linked to nucleotide with
 hydrolase-cleavable linkage and their use in DNA sequencing
 IN Giering, Lea; Oedra, Rai; Simmonds, Adrian
 PA Amersham Biosciences UK Limited, UK; Johnson, Karin Sofia Helena
 SO PCT Int. Appl., 37 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT_1

PAT. CNT	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 2003/048178	A2	2003/06/12	WO 2002-GB575	2002/11/28	<-
	WO 2003/048178	A3	2003/11/27			
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CY, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GR, HK, HU, IL, IN, IT, JP, KE, KG, KP, KR, KZ, LA, LK, LS, LT, LV, LU, MA, MD, MG, MN, MW, MX, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UG, UA, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:	GZ, GM, KE, LS, MW, MG, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, TN, TJ, TT, BE, BG, CH, CY, CZ, DE, DF, FI, FR, GE, GR, HU, IL, IN, JP, KE, KR, KZ, LA, LK, LS, LT, LV, LU, MA, MD, MG, MN, MW, MX, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UG, UA, US, UZ, VC, VN, YU, ZA, ZM, ZW				
CA	2468432	A1	2003/06/12	CA 2002-2468432	2002/11/28	<-
AU	2002356270	A1	2003/06/12	AU 2002-356270	2002/11/28	<-
EP	1451201	A2	2004/09/01	EP 2002-804269		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LT, LU, NL, SE, MC, PT, HU, IE, SI, TJ, TR, UA, US, UZ, VC, VN, YU, ZA, ZM, ZW				
JP	2000517646	T	2005/06/16	JP 2005-549666	2002/11/28	
US	2005/016182	A1	2005/07/28	US 2005-496721	2005/01/21	
GB	2001-28526	A	2001/11/29			
WO	2002-GB575	W	2002/11/28			

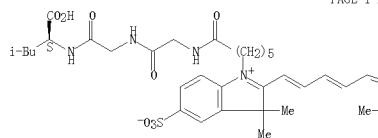
AB The invention relates to nucleosides comprising a reporter moiety which also functions to limit polymerase activity, characterized in that the reporter moiety is attached to the nucleoside through a linkage group cleavable by a hydrolase enzyme wherein the hydrolase enzyme is selected from the group consisting of esterases, phosphatases, peptidases, penicillin amidases, glycosidases and phosphorylases. These nucleoside derivs. may be used in DNA sequencing.

IT	<p>687867: Nucleotide used in DNA sequencing.</p> <p>539796-78-6F: 539796-78-6F-80-9F</p> <p>RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)</p> <p>(nucleotide analogs containing Fluorophore linked to nucleotide with hydrophilic cleavable linkage and their use in DNA sequencing)</p>
RN	539796-78-6 CAPLIS
CN	<p>Leucine (L) [2S]-1-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolol-1-ol</p> <p>oxhexyl[glycylglycyl, inner salt (9CI) (CA INDEX NAME)</p>

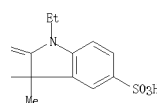
Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 40 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



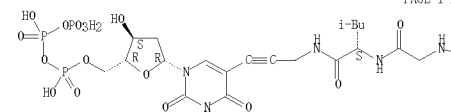
PAGE 1-B



RN 539796-80-0 CAPLUS
 CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[N-[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]oxyhexyl]glycylglycyl-L-leucyl]amino]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)

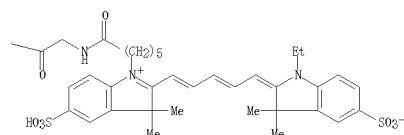
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 40 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

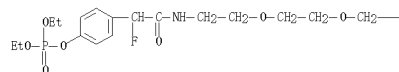
PAGE 1-B



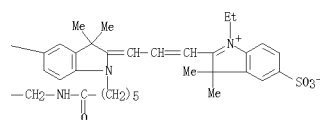
L6	ANSWER #1 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
AN	2003:190667 CAPLUS
DN	139:145678
TI	Activity-based fluorescent probes that target phosphatases
AU	Zhu, Qing; Huang, Xuan; Chen, Grace Y. J.; Yao, Shao Q.
CU	Department of Chemistry, National University of Singapore, Singapore, 117454, Singapore
S0	Tetrahedron Letters (2003), 44(13), 2669-2672
PD	CODEN: TETLET; ISSN: 0040-4039
FB	Elsevier Science Ltd.
DT	Journal
LA	English
OS	CASREACT 139:145678
AB	We have successfully designed and synthesized two fluorescently-labeled, activity-based probes, Probe 1 and Probe 2, which were shown to label protein tyrosine phosphatases specifically, as well as other types of phosphatases. The probes were not reactive towards the other non-phosphatase enzymes tested. These probes may find potential applications in large-scale proteomic expts. whereby subclasses of proteins may be selectively identified.
IT	6459162-62-6P
RE	REACT (Reactant): SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
CR	(activity-based fluorescent probes that target phosphatases)
RN	6459162-62-5 CAPLUS
CN	3-fluoroindolium, 2-[3-[1-[18-[4-[(diethoxyphosphorinyl)oxy]phenyl]-18-fluoro-6,17-dioxo-10,13-dioxo-7,16-diazaoctadec-1-yl]-1,3-dihydro-6,3,3-dimethyl-5-oxo-1H-indol-2-yl]idene]-1-propan-1-yl]-1-ethyl]-3,3-dimethyl-6-sulfo-, inner salt; (CA Index 16)

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H03S—



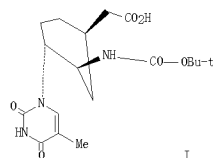
PAGE 1-B



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6	ANSWER 42 OF 100	CAPLUS	COPYRIGHT 2008 ACS	ON STN
AN	2008:152401	CAPLUS		
DN	138:188074			
TI	Synthesis of cyclohexyl- or hetero-cyclohexyl-nucleosides and their			
	oligonucleotides or conjugates			
IN	Reuschling, Dieter; Muller-Iberer, Jochen; Wagner, Thomas; Krumm, Thomas;			
	Wermuth, Jochen; Pignot, Marc			
PA	Nanogen Recognomics GmbH, Germany			
SO	Ger Offen, 32 pp.			
DI	CODEN: GWXXBX			
DT	Patent			
LA	German			
FAN	CUT			

PAN. CNT	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 10139790	A1	2003/0227	DE 2001-10159730	20010813	(->)
	WO 2003/01661	A2	2003/0227	WO 2002-EP9044	20020813	(->)
	W: 000661	A3	2003/1204			
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	RW: GH, GE, KE, KE, LS, MW, ME, SD, SL, SZ, TG, UG, ZM, ZW, AM, AZ, BY, KG, KZ, RU, TJ, TM, TJ, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FI, FR, GB, GR, GR, HU, IL, IT, LU, MK, NL, PT, SE, SK, TR, BF, BJ, CP, CA, CI, CM, CN, DE, DM, DZ, EC, EE, ES, FI, FI, GD, GE, GH, GR, HR, HU, IL, IL, IN, IT, JP, KE, KG, KP, KZ, LK, LC, LR, LS, LT, LV, LU, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NM, OL, PL, PT, RD, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZM, ZW					
AP	2003235406	A1	2003/0603	AU 2002-533406	20020813	(->)
EU	1427710	A2	2004/0616	EP 2002-794784	20020813	(->)
	R: AT, AT, BE, CH, DE, DK, ES, FR, GR, IT, IL, LI, LU, NL, SE, MK, PT, SI, LT, LV, LV, DE, DK, ES, FR, GR, IT, IL, LI, LU, NL, SE, MK, PT, SI					
	JP 200500591	F1	2005/0101	JP 2003-51865	20020813	(->)
US	2004/0249152	T	2004/1209	US 2004-486597	2004/0719	(->)
PRAI	DE 10139790	A	2001/0813			
WO	2002-EP9044	W	2002/0813			
GI	MARPAT 138:185074					



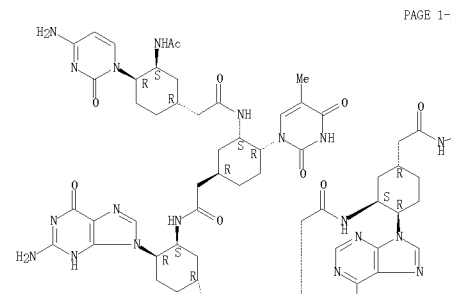
AB Cyclohexane-based peptide nucleic acid monomer analogs (CNA-monomers, e.g., 1) or their enantiomers were prepared. Oligomers of CNA monomers were prepared using solid-phase synthesis techniques. A fluorescently labeled CNA pentamer was hybridized with a biotin-labeled pseudo-nucleic acid octamer with a phosphate-bridged backbone composed of 2'-4-ribo-pyranose for thermal decomposition study on base-pairing of the two dissimilar

L6 ANSWER 42 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
nucleic acid analogs. Thus, thymine was condensed with
(1R,5R,8R)-8-iodo-2-azabicyclo[3.3.1]nonan-8-one, the intermediate's
secondary amine nitrogens were BOC-protected, the lactam bond cleaved, and
the thymine-base ring nitrogen BOC group removed to give I. Addnl.,
prep., and use of H2O3PO(CH2)3OCH2 for use as the N-terminal protecting
group in CNA-oligomers was given.

IT 497944-56-6P 497944-63-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyclohexyl-nucleoside derivs. and their oligomers or
conjugates via base coupling to iodoazabicyclononane followed by
singosylation)

[illegible]

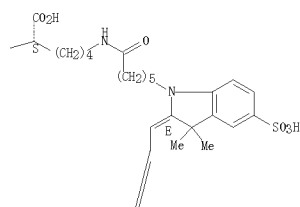
Absolute stereochemistry.
Double bond geometry as shown.



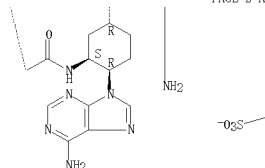
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L6 ANSWER 42 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

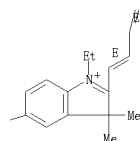
PAGE 1-B



PAGE 2-A



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RN 497944-63-5 CAPLUS
 CN β -D-ribofuranouridine, 4'-O-[(11S)-17-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazo[4'-y]l-1-hydroxy-11-(hydroxymethyl)-1-oxido-10,13-dioxo-2-oxa-9,12-diaza-1-phosphaheptadec-1-yl]-5-methyl- β -D-ribofuranouridylyl-(2'-4')- β -D-ribofuranoadenylyl-(2'-4')- β -D-ribofuranoguanilyl-(2'-4')- β -D-

L6 ANSWER 42 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

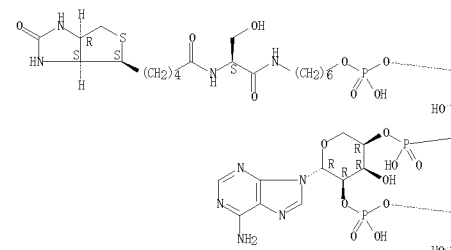
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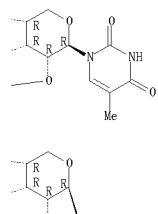
Absolute stereochemistry.

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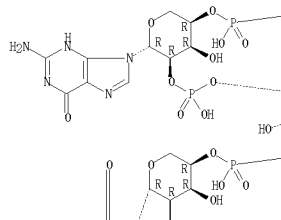


L6 ANSWER 42 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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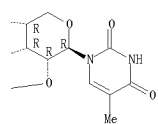


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L6 ANSWER 42 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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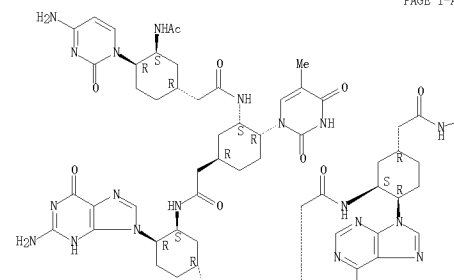
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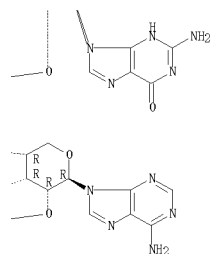
Absolute stereochemistry.
Double bond geometry as shown.

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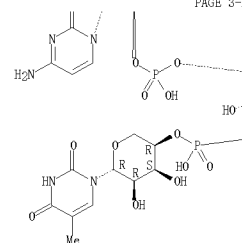


L6 ANSWER 42 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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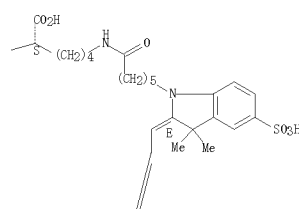


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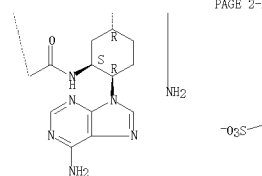


L6 ANSWER 42 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

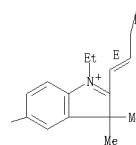
PAGE 1-B



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L6 ANSWER 43 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:141232 CAPLUS
 DN 138:166252
 TI FRET-based detection of nucleic acids using luminescent indicators with high affinity for multiplex nucleic acid complex
 IN Nakamura, Takeki; Makino, Yoshihiko
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 11 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 3

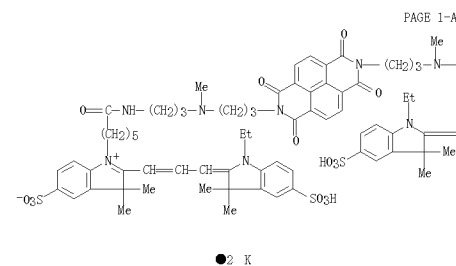
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PI JP 2003052399	A	20030225	JP 2001-247538	20010817 <--
US 20030165918	A1	20030904	US 2002-219671	20020816 <--
PRAI JP 2001-247535	A	20010817		
JP 2001-247536	A	20010817		
JP 2001-247538	A	20010817		

AB A method for detection of nucleic acids using hybridization probes and at least a pair of luminescent compds. having higher affinity for duplex or triplex nucleic acid complex than to single-stranded forms are described. The luminescent compds. are intercalating agents and have at least a pair of chromophores whose absorption (excitation) wavelengths are separated by 80nm. Fluorescent compds. of this invention provided a much higher signal to noise ratio due to fluorescence resonance energy transfer (FRET) compared to the reference compds. when used in combination with immobilized probes. A method for detection of nucleic acids using hybridization probes and at least a pair of luminescent compds. having higher affinity for duplex or triplex nucleic acid complex than to single-stranded forms are described. At least one of the luminescent compds. is an intercalating agent. Fluorescent compds. of this invention provided a much higher signal to noise ratio due to fluorescence resonance energy transfer (FRET) compared to the reference compds. when used in combination with immobilized probes.

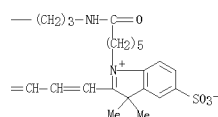
IT 497227-47-1
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (FRET-based detection of nucleic acids using luminescent indicators with high affinity for multiplex nucleic acid complex)

RN 497227-47-1 CAPLUS
 CN 3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[1,1,1',3',3',6',8',8']phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-, bis(inner salt), dipotassium salt (9CI) (CA INDEX NAME)

L6 ANSWER 43 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



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L6 ANSWER 44 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:141231 CAPLUS
 DN 138:166251
 TI FRET-based detection of nucleic acids using luminescent indicators with high affinity for multiplex nucleic acid complex
 IN Nakamura, Takeki; Inomata, Hiroko; Kojima, Masayoshi
 PA Fuji Photo Film Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 3

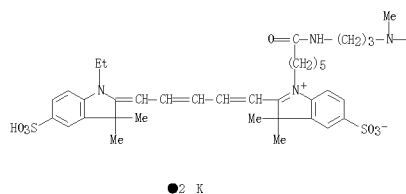
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PRAI JP 2001-247535	A	20010817		
JP 2001-247536	A	20010817		
JP 2001-247538	A	20010817		

AB A method for detection of nucleic acids using hybridization probes and at least a pair of luminescent compds. having higher affinity for duplex or triplex nucleic acid complex than to single-stranded forms are described. At least one of the luminescent compds. is an intercalating agent. Fluorescent compds. of this invention provided a much higher signal to noise ratio due to fluorescence resonance energy transfer (FRET) compared to the reference compds. when used in combination with immobilized probes.

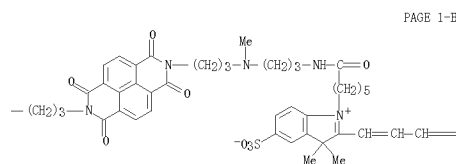
IT 497227-46-0 497227-47-1
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (FRET-based detection of nucleic acids using luminescent indicators with high affinity for multiplex nucleic acid complex)

RN 497227-46-0 CAPLUS
 CN 3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[1,1,1',3',3',6',8',8']phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-, bis(inner salt), dipotassium salt (9CI) (CA INDEX NAME)

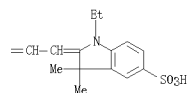
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L6 ANSWER 44 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

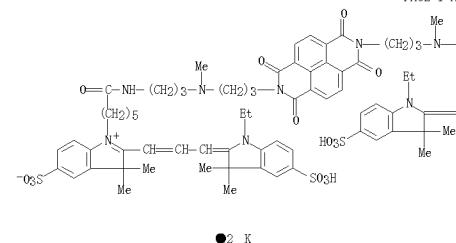


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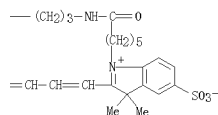
RN 497227-47-1 CAPLUS
 CN 3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[1,1,1',3',3',6',8',8']phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-, bis(inner salt), dipotassium salt (9CI) (CA INDEX NAME)

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L6 ANSWER 44 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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L6 ANSWER 45 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:141230 CAPLUS

DN 138:166250

TI FRET-based detection of nucleic acids using luminescent indicators with high affinity for multiplex nucleic acid complex

IN Nakamura, Takemare

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

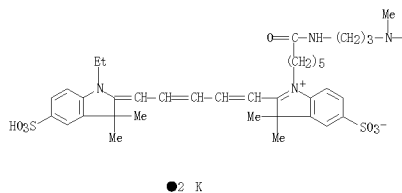
DT Patent

LA Japanese

FAN CNT 3

PAT. CNT	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	US 20030165918	A1	20030904	US 2002-219671	20020816 <--
PRAI	JP 2001-247535	A	20010817		
	JP 2001-247536	A	20010817		
	JP 2001-247538	A	20010817		
AB	A method for detection of nucleic acids using hybridization probes and at least a pair of luminescent compds. having higher affinity for duplex or triplex nucleic acid complex than to single-stranded forms are described. At least one of the luminescent compds. is an intercalating agent. Fluorescent compds. of this invention provided a much higher signal to noise ratio due to fluorescence resonance energy transfer (FRET) compared to the reference compds. when used in combination with immobilized probes.				
IT	497227-46-0 497227-47-1 497227-48-2				
	RL: AR6 (Analytical reagent use); ANST (Analytical study); USES (Uses) (FRET-based detection of nucleic acids using luminescent indicators with high affinity for multiplex nucleic acid complex)				
RN	497227-46-0 CAPLUS				
CN	3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[imn][3,8]phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-, bis(inner salt), dipotassium salt (9CI) (CA INDEX NAME)				

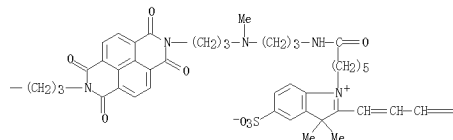
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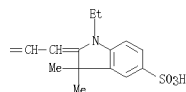
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L6 ANSWER 45 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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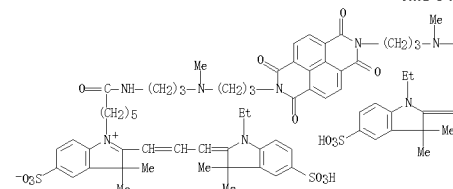
PAGE 1-C



RN 497227-47-1 CAPLUS

CN 3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[imn][3,8]phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-, bis(inner salt), dipotassium salt (9CI) (CA INDEX NAME)

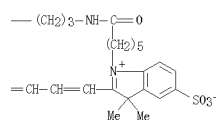
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● 2 K

L6 ANSWER 45 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

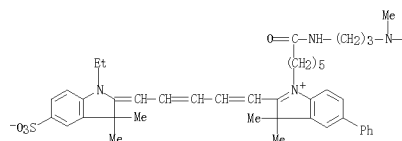
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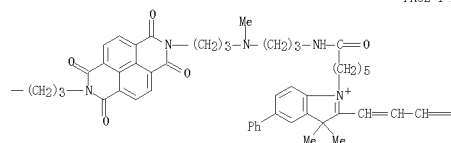
RN 497227-48-2 CAPLUS

CN 3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[imn][3,8]phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-phenyl-, bis(inner salt) (9CI) (CA INDEX NAME)

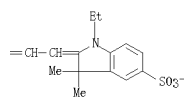
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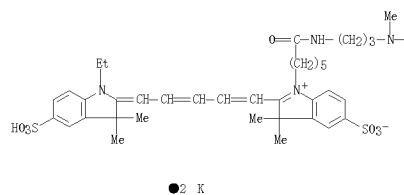
L6 ANSWER 45 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
PAGE 1-C



L6 ANSWER 46 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:141221 CAPLUS
DN 138:166249
TI Fluorescent indicators with high affinity for multiplex nucleic acid complex for detection of nucleic acids via hybridization
IN Nakamura, Takeki
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003052377	A	20030225	JP 2001-247537	20010817 <--
PRAI	JP 2001-247537		20010817		
AB	A method for detection of nucleic acids using hybridization probes and at least a pair of fluorescent indicators having higher affinity for duplex or triplex nucleic acid complex than to single-stranded forms are described. Fluorescent compds. of this invention provided a much higher signal to noise ratio compared to the reference compds. when used in combination with immobilized probes.				
IT	497227-46-0 497227-47-1				
RL	ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (fluorescent indicators with high affinity for multiplex nucleic acid complex for detection of nucleic acids via hybridization)				
RN	497227-46-0 CAPLUS				
CN	3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[1,1',3,8]phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-, bis(inner salt), dipotassium salt (9CI) (CA INDEX NAME)				

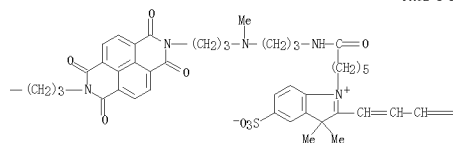
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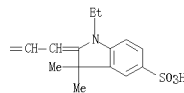
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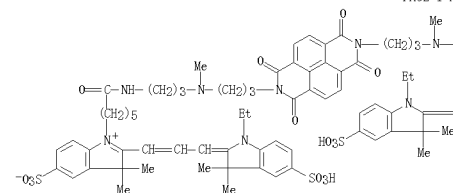


PAGE 1-C



RN 497227-47-1 CAPLUS
CN 3H-Indolium, 1,1'-[(1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[1,1',3,8]phenanthroline-2,7-diyl)bis[3,1-propanediyl(methylimino)-3,1-propanediylimino(6-oxo-6,1-hexanediyl)]]bis[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-, bis(inner salt), dipotassium salt (9CI) (CA INDEX NAME)

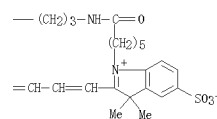
PAGE 1-A



●2 K

L6 ANSWER 46 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



L6 ANSWER 47 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:58225 CAPLUS

DN 138:118427

TI Nucleotides conjugated to markers via photocleavage linkage and their use for labeling nucleic acids

IN Olejnik, Jerzy; Kraymanska-Olejnik, Edyta; Rothschild, Kenneth J.

PA Amberg, Inc., USA

SO PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003/006625	A2	2003/0123	WO 2002-US22369	20020712 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, ES, FI, GB, GL, GR, GU, HK, HU, IL, IN, IT, JP, KE, KG, KP, KR, KZ, LD, LG, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.				
RW: GH, GM, KE, KS, LU, MW, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, BF, BG, CH, CN, CU, DE, DK, EE, ES, FI, FR, GB, GR, GU, HK, IL, IN, IT, JP, KE, KG, KP, KR, KZ, LD, LG, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ.				
CA 2452474	A1	2003/0123	CA 2002-2452474	20020712 <--
AU 2002354577	A1	2003/0129	AU 2002-354577	20020712 <--
AU 2002354577	B2	2007/0008		
US 2003/0099972	A1	2003/0529	US 2002-193781	20020712 <--
US 7057031	B2	2006/0606		
EP 1415001	A2	2004/0506	EP 2002-784906	20020712 <--
R: AT, BE, BG, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2006/025923	A1	2006/1109	US 2006-551996	2006/0209
PRAI US 2001-505490P	P	2001/0713		
US 2002-193781	A	2002/0712		
WO 2002-US22369	W	2002/0712		
OS MARPAT 138:118427				

AS Photocleavable nucleotide-marker conjugates and their use in nucleic acid labeling is disclosed. Thus, the synthesis of dUTP linked via a 5'-aminomethyl- α -methyl-2-nitrobenzyl alc. photocleavable linkage to BODIPY-FL or to Cy5 is described. These dUTP derivs. were used to label an oligonucleotide using terminal deoxynucleotidyl transferase.

IT 488140-94-9P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(nucleotides conjugated to markers via photocleavage linkage and their use for labeling nucleic acids)

RN 488140-94-9 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[3-[1-[[[3-[1-[2-deoxy-5'-O-[hydroxyl[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]- β -D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-6-pyrimidinyl]-2-propenyl-1-yl]amino]carbonyl]oxy]ethyl]-4-nitrophenyl]methyl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

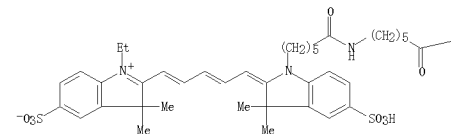
Absolute stereochemistry.

Double bond geometry unknown.

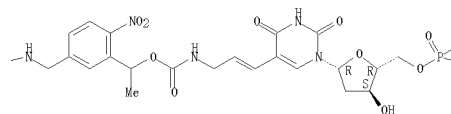
L6 ANSWER 47 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

(Continued)

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PAGE 1-C



L6 ANSWER 48 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:24070 CAPLUS

DN 138:550659

TI The 2'-O- and 3'-O-Cy3-EDA-ATP (ADP) complexes with myosin subfragment-1 are spectroscopically distinct

AU Oiwa, Kazuhiro; Jameson, David M.; Croney, John C.; Davis, Colin T.;

CS Eccleston, John F.; Anson, Michael

SO Kanasi Advanced Research Center, Kobe, 651-2492, Japan

SO Biophysical Journal (2006), 84(1), 634-642

CODEN: BIOJAU; ISSN: 0006-3496

FB Biophysical Society

DT Journal

LA English

AB

Ribose-modified highly-fluorescent sulfoindocyanine ATP and ADP analogs, 2'-(3')-O-Cy3-EDA-AT (D)P, with kinetics similar to AT (D)P, enable myosin and actomyosin ATPase enzymol. with single substrate mols. Stopped-flow studies recording both fluorescence and anisotropy during binding to skeletal muscle myosin subfragment-1 (S1) and subsequent single-turnover decay of steady-state intermediates showed that on complex formation, 2'-O- isomer fluorescence quenched by 5%, anisotropy increased from 0.205 to 0.357, and then decayed with turnover rate k_{cat} 0.07 s⁻¹; however, 3'-O- isomer fluorescence increased 17%, and anisotropy from 0.202 to 0.389, but k_{cat} was 0.03 s⁻¹. Cy3-EDA-ADP-S1 complexes with vanadate (Vi) were studied kinetically and by time-resolved fluorometry as stable analogs of the steady-state intermediates. Upon formation of the 3'-O-Cy3-EDA-ADP-S1-Vi complex fluorescence doubled and anisotropy increased to 0.372; for the 2'-O- isomer, anisotropy increased to 0.343 but fluorescence only 6%. Average fluorescent lifetimes of 2'-O- and 3'-O-Cy3-EDA-ADP-S1-Vi complexes, 0.9 and 1.85 ns, compare with approx. 0.7 ns for free analogs. Dynamic polarization shows rotational correlation times higher than 100 ns for both Cy3-EDA-ADP-S1-Vi complexes, but the 2'-O- isomer only has also a 0.2-ns component. Thus, when bound, 3'-O-Cy3-EDA-ADP's fluorescence is twofold brighter with motion more restricted and turnover slower than the 2'-O- isomer; these data are relevant for applications of these analogs in single mol. studies.

IT 521062-96-3

521062-96-4

521062-97-5

521062-98-6

RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(time-resolved fluorometric studies of 2'-O- and 3'-O-Cy3-EDA-ATP (ADP) complexes with myosin subfragment-1)

RN 521062-96-3 CAPLUS

CN Adenosine 5'-(tetrahydrogen triphosphate), 2'-[[2-[[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate], inner salt (9C1) (CA INDEX NAME)

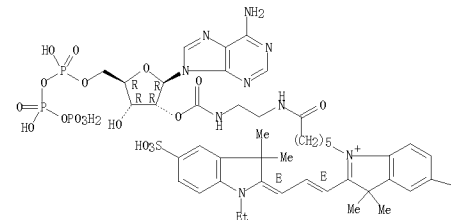
Absolute stereochemistry.

Double bond geometry as shown.

L6 ANSWER 48 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

(Continued)

PAGE 1-A



PAGE 1-B



RN 521062-96-4 CAPLUS

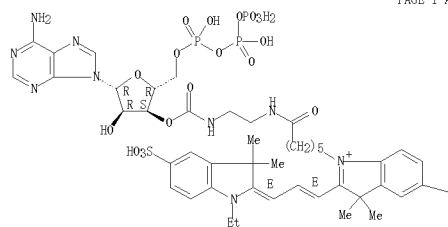
CN Adenosine 5'-(tetrahydrogen triphosphate), 3'-[[2-[[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate], inner salt (9C1) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.

L6 ANSWER 48 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

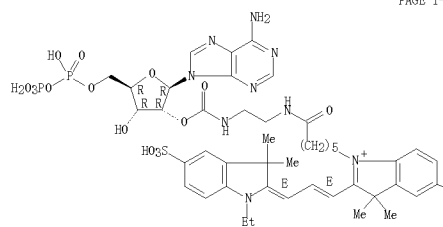
~SO3-

RN 521062-97-5 CAPLUS
 CN Adenosine 5'-(trihydrogen diphosphate), 2'-[[[2-[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate], inner salt (9C1) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 48 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

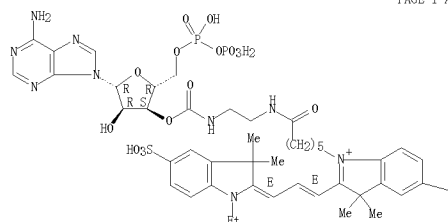
~SO3-

RN 521062-98-6 CAPLUS
 CN Adenosine 5'-(trihydrogen diphosphate), 3'-[[[2-[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate], inner salt (9C1) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 48 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

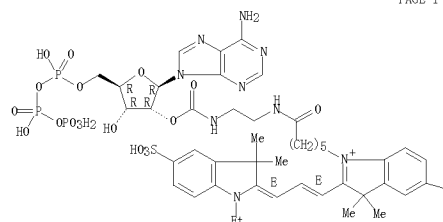
~SO3-

IT 521062-95-3D, complexes with myosin subfragment
 521062-96-4D, complexes with myosin subfragment
 521062-97-5D, complexes with myosin subfragment
 521062-98-6D, complexes with myosin subfragment
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (time-resolved fluorometric studies of 2'-O- and 3'-O-Cy3-EDA-ATP (ADP) complexes with myosin subfragment-1)
 RN 521062-95-3 CAPLUS
 CN Adenosine 5'-(tetrahydrogen triphosphate), 2'-[[[2-[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate], inner salt (9C1) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 48 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

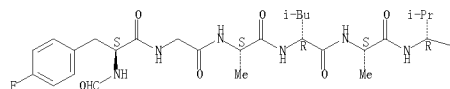
~SO3-

RN 521062-96-4 CAPLUS
 CN Adenosine 5'-(tetrahydrogen triphosphate), 3'-[[[2-[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate], inner salt (9C1) (CA INDEX NAME)

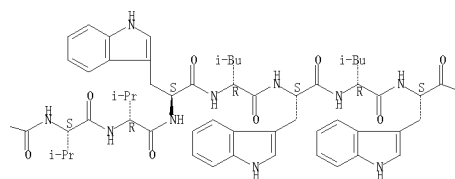
Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 49 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

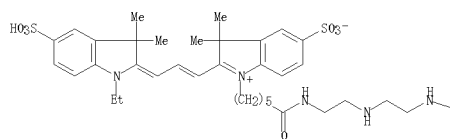


PAGE 1-B

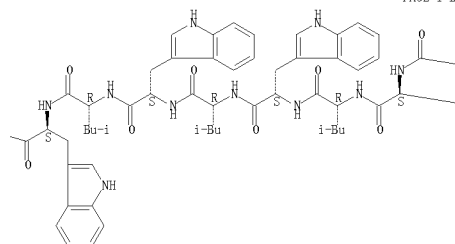


L6 ANSWER 49 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

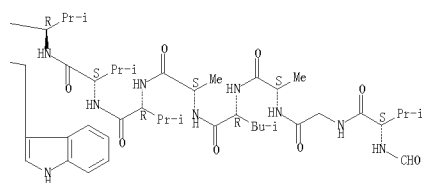
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PAGE 1-B

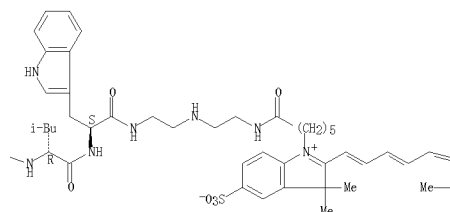


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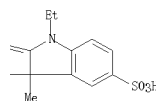


L6 ANSWER 49 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-C



PAGE 1-D



RN 534614-55-6 CAPLUS
 CN Gramicidin A, 1-L-valine-15-[N-[2-[[[6-[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]amino]ethyl]amino]ethyl]-L-tryptophanamide], inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 49 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

RE.CNT 51 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 50 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:925343 CAPLUS
 DN 138:21767
 TI Fluorescent group-containing carbodiimide compound and process for
 producing the compound
 IN Kimura, Naoki
 PA Nissinbo Industries, Inc., Japan
 SO Eur. Pat. Appl., 28 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1262536	A2	20021204	EP 2002-253557	20020521 <--
EP 1262536	A3	20030326		
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JP 2003048879	A	20030221	JP 2002-95074	20020329 <--
CA 2386755	A1	20021130	CA 2002-2386755	20020517 <--
US 20030073866	A1	20030417	US 2002-154321	20020521 <--
US 6825195	B2	20041130		
EP 1439214	A2	20040721	EP 2004-9194	20020521 <--
EP 1439214	A3	20060705		
R: AT, BE, CH, DE, FR, GB, LI				

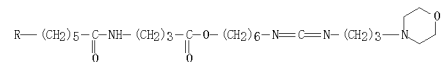
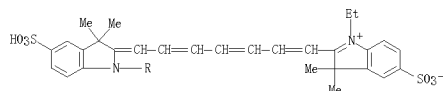
PRAI JP 2001-164905 A 20010531
 JP 2002-95074 A 20020329
 EP 2002-253557 A3 20020621

AB Carbodiimide comds. having an ester linkage and containing a fluorescent group are described; methods for preparing them entailing reacting a carbodiimide with a fluorescent group-containing compound to form an ester linkage are also described. The carbodiimide may be prepared by reacting an amine with an iso(thio)cyanate and then treating the resulting thiourea compound to produce the carbodiimide. Methods of detecting a nucleic acid by hybridization using a nucleotide labeled with a marker are described in which the fluorescent group-containing carbodiimide comds. are employed as markers.

IT 477885-53-3P 477885-55-5P 477885-57-7P
 477885-59-9P
 RL: ARG (Analytical reagent use); IMF (Industrial manufacture); ANST (Analytical study); PREP (Preparation); USBS (Uses)
 (fluorescent group-containing carbodiimide comds. and their preparation and use for nucleic acid detection)

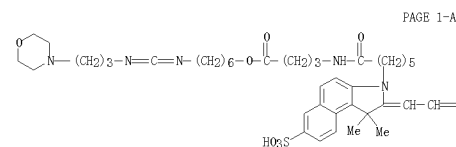
RN 477885-53-3 CAPLUS
 CN 3H-Indolium, 2-[3-[1,3-dihydro-3,3-dimethyl-1-[24-(4-morpholinyl)-6,11-dioxo-12-oxa-7,19,21-triazatetracos-19,20-dien-1-yl]-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, potassium salt (1:1) (CA INDEX NAME)

L6 ANSWER 50 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



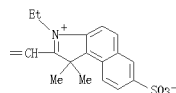
● K

RN 477885-59-9 CAPLUS
 CN 1H-Benz[e]indolium, 2-[3-[1,3-dihydro-1,1-dimethyl-3-[24-(4-morpholinyl)-6,11-dioxo-12-oxa-7,19,21-triazatetracos-19,20-dien-1-yl]-7-sulfo-2H-benz[e]indol-2-ylidene]-1-propen-1-yl]-3-ethyl-1,1-dimethyl-7-sulfo-, inner salt, potassium salt (1:1) (CA INDEX NAME)



● K

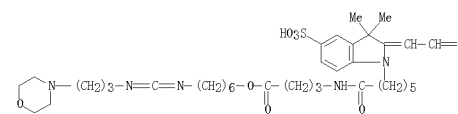
PAGE 1-B



IT 477885-52-2P 477885-54-4P 477885-56-6P
 477885-58-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (fluorescent group-containing carbodiimide comds. and their preparation and use

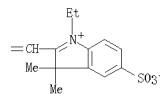
L6 ANSWER 50 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

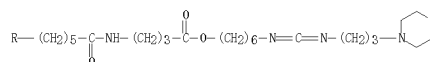
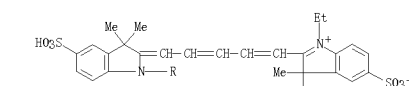


● K

PAGE 1-B



RN 477885-55-5 CAPLUS
 CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[24-(4-morpholinyl)-6,11-dioxo-12-oxa-7,19,21-triazatetracos-19,20-dien-1-yl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, potassium salt (1:1) (CA INDEX NAME)

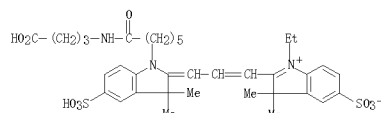


● K

RN 477885-57-7 CAPLUS
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L6 ANSWER 50 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

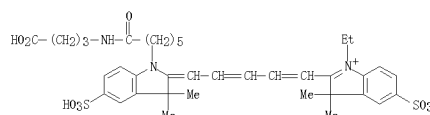
RN 477885-52-2 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[(3-carboxypropyl)amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, cesium potassium salt (1:1:1) (CA INDEX NAME)



● Cs

● K

RN 477885-54-4 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[(3-carboxypropyl)amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, cesium potassium salt (1:1:1) (CA INDEX NAME)



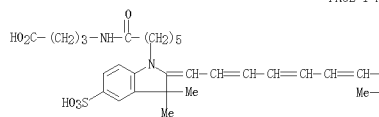
● Cs

● K

RN 477885-56-6 CAPLUS
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L6 ANSWER 50 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

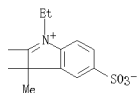
PAGE 1-A



● Cs

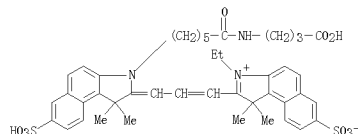
● K

PAGE 1-B



RN 477885-58-8 CAPLUS
 CN 1H-Benz[e]indolium, 2-[3-[6-[(3-carboxypropyl)amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-7-sulfo-2H-benz[e]indol-2-ylidene]-1-propen-1-yl]-3-ethyl-1,1-dimethyl-7-sulfo-, inner salt, cesium potassium salt (1:1:1)
 (CA INDEX NAME)

L6 ANSWER 50 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● Cs

● K

L6 ANSWER 51 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:849845 CAPLUS

DN 137:364341

TI Large-scale sequencing of nucleic acids captured on arrays by cyclic addition of base analogs with labile reporter groups blocking primer extension

IN Tcherkassov, Dmitri

PA Genovox G.m.b.H., Germany

SO PCT Int. Appl., 121 pp.

CODEN: P1XXD2

DT Patent

LA German

FAN, CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002088382	A2	20021107	WO 2002-EP4659	20020426 <--
WO 2002088382	A3	20030828		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10120797	A1	20021121	DE 2001-10120797	20010427 <--
DE 10120797	B4	20051222		
AU 2002304705	A1	20021111	AU 2002-304705	20020426 <--
EP 1381698	A2	20040121	EP 2002-732680	20020426 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CH, AL, TR			
JP 2004529650	T	20040930	JP 2002-585662	20020426 <--
FRAI DE 2001-10120797	A	20010427		
WO 2002-EP4659	W	20020426		

MARFAT 137:364341

AB The invention relates to a method for large-scale parallel sequencing of nucleic acids. The method involves capturing individual sequences in an array using oligonucleotides that can be used as hybridization probes and primers. Sequences are captured on an array and sequences are determined by primer extension using base analogs carrying a labile reporter group that blocks primer extension. After determining the incorporated base, e.g. by fluorometry, the blocking group is removed and rounds of base incorporation are repeated.

474508-47-9 474508-49-1

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (in DNA sequencing; large-scale sequencing of nucleic acids captured on arrays by cyclic addition of base analogs with labile reporter groups blocking primer extension)

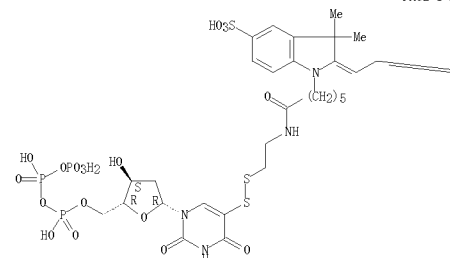
RN 474508-47-9 CAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[[2-[1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,5,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]dithio]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

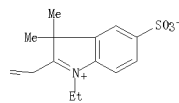
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 51 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B



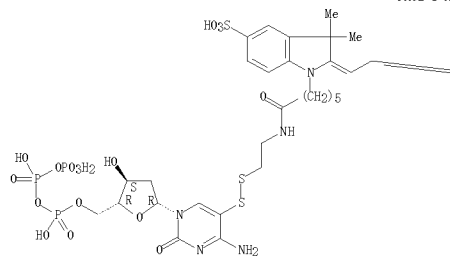
RN 474508-49-1 CAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[[2-[1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-5-pyrimidinyl]dithio]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

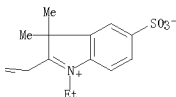
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 51 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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PAGE 1-B



L6 ANSWER 52 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 the polymerase selections. The nucleobase moieties were either unlabeled or tagged with elec. charged groups in different charge-switching configurations. Some configurations maximize the charge difference between γ -dNTP and PP-F, which is good for electrosorting microfluidics. Both aliph. and peptide linkers were used to connect the dyes to the γ -P. The linkers have different nos. of charged groups to compensate the different dye charges as required for charge switching. Directional coupling of peptide linkers to the nucleotide is accomplished using a peptidase to deprotect the N-terminus of the linker after it is coupled to the γ -P.

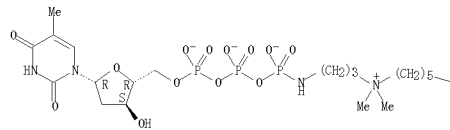
IT 474093-22-6 474093-26-0 474093-29-3
 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
 (charge-switched nucleotide; DNA polymerase mutants with increase activity for charge-switch nucleotides)

RN 474093-22-6 CAPLUS

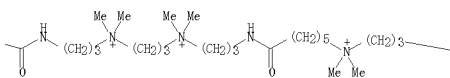
CN Thymidine 5'-(trihydrogen diphosphate), P'-P-anhydride with N-[3-[[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]propyl]-N,N,N',N',11,11,15,15-octamethyl-6,20-dioxo-N'-[3-(phosphonoamino)propyl]-7,19-diaza-11,15-diazoniapentacosane-1,25-diaminium, pentakis(inner salt) (9C1) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

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-O3S-

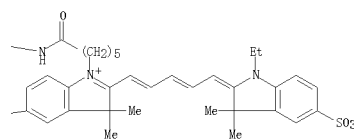
L6 ANSWER 52 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:832940 CAPLUS
 DN 137:347515
 TI DNA polymerase mutants with increase activity for charge-switch nucleotides
 IN Williams, John G. K.
 PA Li-Cor, Inc., USA
 SO PCT Int. Appl., 99 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002086088	A2	20021031	WO 2002-US13026	20020424 <--
WO 2002086088	A3	20030227		
W:	AB, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MP, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, CA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002258997	A1	20021105	AU 2002-258997	20020424 <--
US 20040259052	A1	20041223	US 2002-131998	20020424 <--
US 20060153095	A1	20060626	US 2007-925722	20071026
US 2001-286258P	P	20010424		
US 2001-314746P	P	20010824		
US 2000-209896P	P	20000607		
US 2001-876374	A1	20010606		
WO 2002-US13026	W	20020424		
US 2006-154419	A1	20060615		

AB This invention provides DNA polymerases with mutations in the charge-switch nucleotide interaction region that increase activity for charge-switch nucleotides. Such polymerases can be generated by introducing mutations in specific residues which are identified as being in the appropriate region through structural models, by homol. to polymerases with known structures, or expl. anal. In some embodiments, the mutant DNA polymerases have addml. mutations that decrease activity for non-charge-switch nucleotides and mutations that decrease exonuclease activity. In another aspect, the invention provides methods of sequencing a target nucleic acid with the above described mutated DNA polymerases. In yet another aspect, the invention provides methods of generating polypeptides having charge-switch nucleotide polymerase activity by introducing "random" mutations and selecting those mutated polypeptides that encode polypeptides having charge-switch nucleotide activity. The term "charge-switch nucleotide", "NP probe", or " γ -dNTP" as used herein refers to a phosphate-labeled nucleotide (e.g., γ -NP-Dye) that upon release or cleavage of a detectable moiety (e.g., PPi-Dye) has a different net charge associated with the cleavage product compared to the intact nucleotide probe (e.g., γ -NP-Dye). DNA polymerases that efficiently incorporate "charge-switched" γ -phosphate-labeled dNTPs for single-mol. DNA sequencing have been developed. A variety of dNTPs were synthesized to provide different charge-switch configurations. Polymerase variants were selected for utilization of the charge-switch nucleotides using the described directed evolution methods. The effect of different nucleotide chemical is investigated by constructing dNTPs with various structures. For example, four dNTPs (ACGT) were labeled on the γ -phosphate with dyes of differing structure and charge for use in

L6 ANSWER 52 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-C

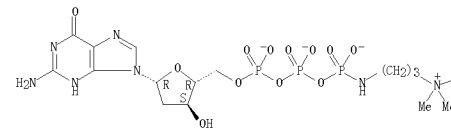


RN 474093-26-0 CAPLUS

CN Guanosine 5'-(trihydrogen diphosphate), 2'-deoxy-, P'-P-anhydride with N-[3-[[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]propyl]dimethylammonio]-1-oxohexyl]amino]propyl]-N,N,N',N'-tetramethyl-N'-[3-(phosphonoamino)propyl]-1,3-propanediaminium, tetrakis(inner salt) (9C1) (CA INDEX NAME)

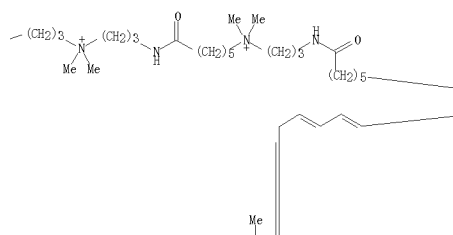
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

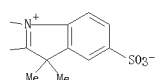


L6 ANSWER 52 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

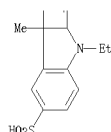
PAGE 1-B



PAGE 1-C



PAGE 2-B



RN 474093-29-3 CAPLUS

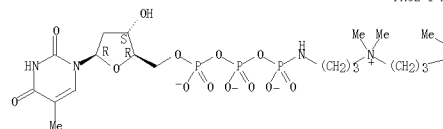
L6 ANSWER 52 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L6 ANSWER 52 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

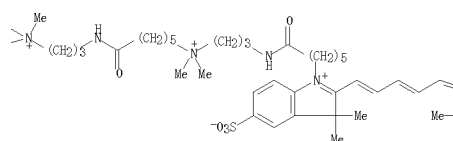
CN Thymidine 5'-(trihydrogen diphosphate), P'-P-anhydride with N-[3-[[[6-[[[3-[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-6-sulfo-3H-indol-1-yl]-oxohexyl]amino]propyl]dimethylammonio]-1-oxohexyl]amino]propyl]-N,N,N',N'-tetraethyl-N'-[3-(phosphonoamino)propyl]-1,3-propanediaminium, tetrakis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

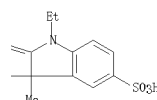
PAGE 1-A



PAGE 1-B



PAGE 1-C



L6 ANSWER 53 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:795913 CAPLUS

DN 138:118138

TI A method for evaluation of the quality of DNA microarray spots

AU Zhang, Bao; Ma, Wen-Li; Hu, Zi-You; Shi, Rong; Song, Yan-Bin; Zheng,

Wen-Ling

CS Department of Biochemistry, First Military Medical University, Canton,

510515, Peop. Rep. China

SO Journal of Biochemistry and Molecular Biology (2002), 35(5),

E32-E35

CODEN: JBMBE5; ISSN: 1225-8687

PB Biochemical Society of the Republic of Korea

DT Journal

LA English

AB To establish a method to evaluate the quality of the printed microarray and DNA fragments' immobilization. The target gene fragments that were made with the restriction display PCR (RD-PCR) technique were printed on a superamine modified glass slide, then immobilized with UV crosslinking and heat. This chip was hybridized with universal primers that were labeled with cy3-dUTP, as well as cDNA that was labeled with cy3-dCTP, as the conventional protocol. Most of the target gene fragments on the chip showed pos. signals, but the neg. control showed no signal, and vice versa. We established a method that enables an effective evaluation of the quality of the microarrays.

IT 488090-50-2

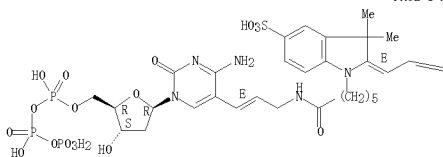
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (cDNA labeled with; method for evaluation of the quality of DNA microarray spots)

RN 488090-50-2 CAPLUS

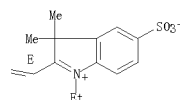
CN 3H-Indolium, 2-[(1E)-3-[(2E)-1-[6-[[[(2E)-3-[4-amino-1-[2-deoxy-5-O-[hydroxyl[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-6-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-6-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-6-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

L6 ANSWER 53 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
ALL CITATIONS AVAILABLE IN THE RE FORMAT

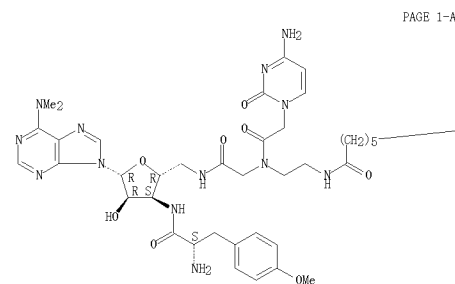
L6 ANSWER 54 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:708816 CAPLUS
DN 137:247925
TI Preparation of peptide nucleic acid (PNA) containing fluorescence and/or biotin-labeled puromycin derivatives as their use for C-terminus monomolecular labeling of proteins
IN Sasaki, Akira; Nemoto, Naoto
PA Gencom Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKKXAF
DI Patent
LA Japanese
FAN CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 2002:265492 A 20020918 JP 2001-65257 20010308 <--
FRAI JP 2001-65257
OS MARPAT 137:247925
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Puromycin derivs. [I; R = R1-L1-, X-L3-L2-L1-, X1-L8-L7-L6-CH(-L5-L9-L10-L11-L12-L13-X2)-L4-L3-L2-L1-; wherein L1, L3, L6, L9, L11, L13 = a spacer; L2, L4, L5, L7, L10, L12 = a linkage group; R1 = a reactive group; Nu = pyrimidine or purine base residue such as cytosine; X1, X2 = a residue of a labeling substance such as a fluorescence substance] are prepared. Also disclosed are protein or nucleic acid or derivative thereof containing the compound I or its salt as the constituent component. Claimed is a method for preparation of modified protein or nucleic acid involving a process of allowing the compound I or its salt to be taken up into the protein or nucleic acid. The present patent establishes the efficient synthesis of puromycin derivs. which are used to efficiently label protein at the C-terminus, and a method for forming a complex of nucleic acid and a protein coded by the nucleic acid using the puromycin derivs. A protein introduced with the puromycin derivative I is typically prepared by introducing RNA (preferably mRNA) coding the protein and the puromycin derivative I into a transcription system and transcribing RNA into protein. Thus, N-trifluoroacetylation of puromycin by trifluoroacetic anhydride in pyridine/MeCN followed by tosylation with tosyl chloride in pyridine gave N α -trifluoroacetyl-5'-O-tosyl puromycin which underwent azidolysis with NaN₃ in DMSO at room temperature for 3 days to give N α -trifluoroacetyl-5'-azido-5'-deoxy puromycin (II). Reduction of II to N α -trifluoroacetyl-5'-amino-5'-deoxy puromycin by treatment with Ph₃P and H₂O in pyridine followed by condensation with N-[2-(4-methoxytritylamino)ethyl]-N'-[N4-(4-tert-butylbenzoyl)cytosin-1-yl]acetyl]glycine pentafluorophenyl ester in 0.15 M NaHCO₃/Na₂CO₃ buffer and deprotection with NH₃ in aqueous EtOH and then with CF₃CO₂H gave I (R = H₂N-CH₂CH₂, Nu = cytosin-1-yl) which was condensed with FluoroLink Mono Reactive Dye Cy5 to give I (R = Q) (Cy5-C α mpu). mRNA coding green fluorescent protein (GFP) (0.1 μ g) and 10 mM I (R = Q) were added to 50 μ L of a wheat germ noncellular translation system (Promega) and allowed to react for 1 h. It was confirmed by separation of the protein using SDS-polyacrylamide electrophoresis and detecting the both fluorescein from I (R = Q) and GFP that the GFP synthesized was labeled by I (R = Q).
IT 459426-17-6P
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST

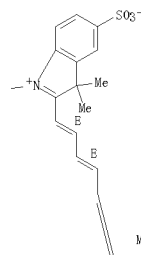
L6 ANSWER 54 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
(Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of peptide nucleic acid (PNA) contg. fluorescence and/or biotin-labeled puromycin derivs. as use for C-terminus monomol. labeling of proteins and nucleic acids by translation of RNA into proteins)
RN 459426-17-6 CAPLUS
CN Adenosine, 3'-[[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-5'-[[[[[4-amino-2-oxo-1(2H)-pyrimidinyl]acetyl]]2-[[[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]ethyl]amino]acetyl]amino]-3',5'-dideoxy-N,N-dimethyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

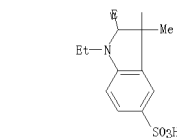


L6 ANSWER 54 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



PAGE 2-B

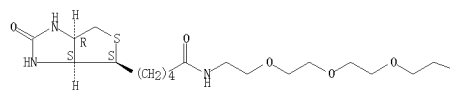


IT 459426-24-5P
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of peptide nucleic acid (PNA) containing fluorescence and/or biotin-labeled puromycin derivs. as use for C-terminus monomol. labeling of proteins and nucleic acids by translation of RNA into proteins)
RN 459426-24-5 CAPLUS
CN Adenosine, 3'-[[[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-5'-[[[[[4-amino-2-oxo-1(2H)-pyrimidinyl]acetyl]]2-[N-[21-[1(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1,17-dioxo-4,7,10,13-tetraoxa-16-azabenzocyclo[3.3.1]non-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]-L-lysyl]-B-alanyl]amino]ethyl]amino]acetyl]amino]-3',5'-dideoxy-N,N-dimethyl-, inner salt (9CI) (CA INDEX NAME)

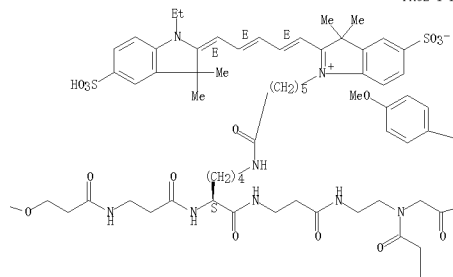
Absolute stereochemistry.
Double bond geometry as shown.

L6 ANSWER 54 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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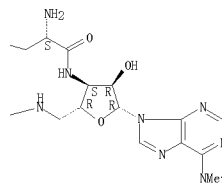


PAGE 1-B



L6 ANSWER 54 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-C



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L6 ANSWER 55 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:695720 CAPLUS
DN 137:211908TI Platinum compounds for nucleic acid labeling
IN Braman, Jeffrey Carl; Huang, Haoqiang
PA Stratagene, USA
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2DT Patent
LA English
FAN. CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002:069898	A2	2002:0912	WO 2002-US6410	2002:03:01 <--
WO 2002:069898	A3	2003:06:05		
V: CA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR				
US 2002:0165369	A1	2002:11:07	US 2002-86515	2002:03:01 <--
US 6825330	B2	2004:11:30		
EP 1373572	A2	2004:01:02	EP 2002-725061	2002:03:01 <--
EP 1373572	B1	2006:07:26		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
AT 334230	7	2006:08:15	AT 2002-725061	2002:03:01
EP 1706254	A2	2006:09:27	EP 2006-75229	2002:03:01
EP 1706254	A3	2007:02:21		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI US 2001-272921P	P	2001:03:02		
EP 2002-725061	A3	2002:03:01		
WO 2002-US6410	W	2002:03:01		

OS MARPAT 137:211908

AB The invention relates to novel platinum-based compds. for labeling biomols. Platinum based labeling compds. according to the invention irreversibly attach to a target biomol. via coordination of a platinum (II) metal center with N or S atoms on the target biomol. The invention relates to the novel compds. themselves, methods of making the platinum-based labeling compds., probes labeled with such compds., methods of making such labeled probes, and kits comprising the novel platinum-based labeling compds. and/or probes labeled with them. The invention also relates to methods of using probes labeled with platinum-based labeling compds. of the invention, particularly array and microarray hybridization methods. Thus, platinum (Cyclohexanediamine) dinitrate was synthesized and shown to label a synthetic 73-residue oligonucleotide with 90-95% yield by reaction at 80° for 30 min using a two-fold excess of platinum labeling compound

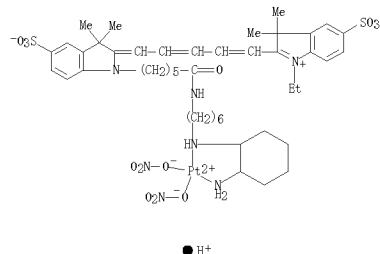
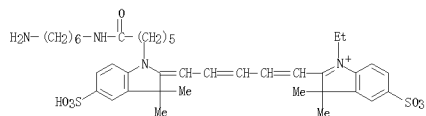
IT 455922-69-7P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(platinum compds. for nucleic acid labeling)

RN 455922-69-7 CAPLUS

CN Platinate (1-), [2-[5-[1-[6-[1-[2-(amino-N) cyclohexyl]amino-N]hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indoliumato (2-)]bis(nitrato-KO)-, hydrogen, (SP-4-S)- (9CI) (CA INDEX NAME)

L6 ANSWER 55 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

IT 455253-09-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(platinum compds. for nucleic acid labeling)
RN 455253-09-5 CAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[1-[2-(amino-N) cyclohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

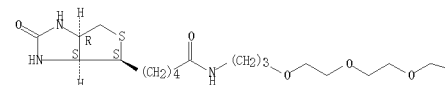
L6 ANSWER 56 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:089827 CAPLUS
DN 157-228963
TI Protein-labeling reagent
IN Nemoto, Naoto; Sasaki, Akira
PA Gencom Co., Ltd. Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

PAT. CNT 1	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002257852	A	20020911	JP 2001-62840	20010227 (<)
	WO 2002073201	A1	20020919	WO 2002-1P718	20020226 (<)
	W: US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	JP 2001-52840	A	20010227		
AB	A protein-labeling reagent is provided, with which one mol. of labeling substance (e.g., fluorescent substance) and one mol. of affinity substance (e.g., biotin, maltose, guanine nucleotide, metal ion, glutathione, protein-binding DNA, antigen mol., calmodulin-binding peptide, ATP, estradiol) or covalent bond-forming reactive group (e.g., ketone group, diol group, azide group, isocyanol) are introduced into one mol. of target protein to be labeled. The protein-labeling reagent is composed of one mol. of labeling substance and one mol. of affinity substance or covalent bond-forming reactive group, both of which are bound with one mol. of substance possessing an ability to bind to the C-terminus of a protein (e.g., γ -puromycin, 3'-N-aminoacylpuromycin aminonucleoside, 3'-N-aminoacyladenine aminonucleoside).				
IT	455901-28-7P				
	RL: BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)				
	(protein-labeling reagent)				
RN	455901-28-7	CAFLUS			
	Adenosine, 2'-deoxy-5'-O-[3-[16-[2-[(1R,3R,5E)-5-[(1-ethyl-1,3-dihydro-3,3-dihydro-5-sulfo-2-thio-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3-thioindol]-5-hydroxy-3-oxo-11-oxo-2,4,7-trioxo-1,4-a-diazaphosphahexadec-1-yl]-23]-(3AS,4S,6AR)-hexahydro-2-oxo-1H-imidazo[4,4-b]imidazo[4,4-y]-1-hydroxy-1-oxid-19-oxo-2,5,8,11,14-pentaoxa-18-aza-1-phosphatricos-1-yl-1-ylidene-1-ylidene-2-ylidene-2-ylidene-2-amino-3-oxo-1,4-diazaphenyl]-oxopropionylamino]-3'-deoxy-N,N-dimethyl-, inner salt. (GC) (CA INDEX NAME)				

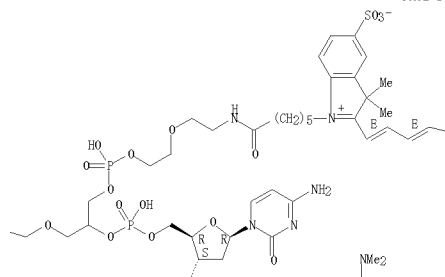
Absolute stereochemistry.
Double bond geometry as shown.

L6 ANSWER 56 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

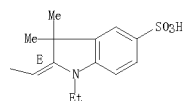
PAGE 1-A



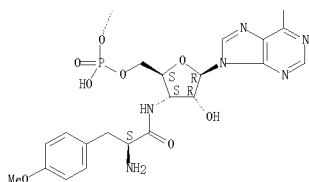
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L6 ANSWER 56 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

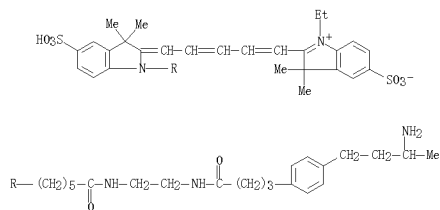


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AN	66	ANSWER 57 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN			
DN	2000:522521	CAPLUS			
IN	137:74757				
TI	Composition and methods for synthesis of novel tracers for detecting amphetamine and methamphetamine in samples				
IN	Wang, Guohong; Foley, Thomas				
FA	USA				
SO	U.S. Pat. Appl. Publ., 17 pp.				
DT	CODEN: USXXCO				
LA	Patent				
EN	English				
FA	ON 1				
PATENT NO. KIND DATE APPLICATION NO. DATE					
PI	US 2002090661	A1	20020711	US 2000-730095	20001204 <--
	US 6472228	B2	20021029		
	CA 2453196	A1	20030123	CA 2001-2435195	20011129 <--
	WO 2000/67739	A2	20000725	WO 2001-0545024	20011129 <--
	WO 2000/67739	A3	20030725		
	W: AB, AG, AL, AM, AT, AU, AZ, BA, BB, BC, BR, BY, BZ, CA, CH, CN, CO, CR, CU, DK, DE, DF, DU, DM, DZ, EC, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LV, LU, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NL, NO, NZ, OM, PA, PE, PG, PH, PT, RU, SD, SE, SG, SI, SK, SL, ST, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, KM, KE, LS, MW, MC, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, CO, GW, ML, MR, NE, SN, TD, TG				
	AU 2002245045	A1	20020730	AU 2002-245045	20011129
	EP 1340081		20030903	EP 2001-993187	20011129 <--
	JP 2004525359	L	20040819	JP 2002-557773	20011129 <--
	JP 2000730095	A	20001104		
	WO 2001-054504	A2	20011129		
AB	This invention relates to novel tracers and their synthesis and use in an immunoassay for the detection of controlled drugs such as amphetamine (APM), methamphetamine (MAPM) and their derivs., in a biol. or aqueous sample. In particular, this invention provides methods for synthesizing novel tracers in which a nonreactive displacement is both the starting material in tracer synthesis and the binding site on the resulting novel tracer for the antibody, thereby eliminating the necessity of using controlled substances as starting materials. In addition, the novel tracers of the present invention can be used as an analyte analog in an immunoassay, such as a continuous flow displacement immunoassay. It was unexpectedly discovered that the presence of the present invention substantially improve the performance of the continuous flow displacement immunoassay as compared with conventionally designed tracers.				
IT	441068-09-3P	441068-14-0P	441068-15-1P		
	RL: AG-(Analytical reagent use): SPN (Synthetic preparation): ANST (Analytical study): PREP (Preparation): USES (Uses)				
	(composition and methods for synthesis of novel tracers for detecting amphetamine and methamphetamine in samples)				
IN	441068-09-3 CAPLUS				
CN	3H-Indolium, 2-[5-[1-[6]-[[2]-[[4-[4-(3-aminobutyl)phenyl]-1-oxoethyl]amino]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2-methyl-2-yl]ene]-3-metadiene-1-yl]-1-ethyl-3,3-dimethyl-6-sulfo-, inner salt: (CA INDEX NAME)				

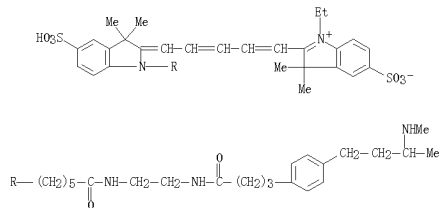
L6 ANSWER 57 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



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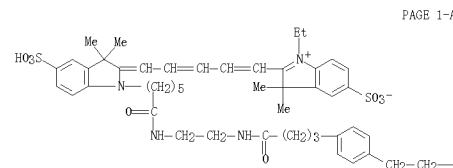
RN 441068-14-0 CAPLUS
CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-[[2-[[4-[4-[3-
(methylamino)butyl]phenyl]-1-oxobutyl]amino]ethylamino]-6-oxohexyl]-5-
sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-6-sulfo-
, inner salt (CA INDEX NAME)

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RN 441068-15-1 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[2-[4-[4-(2-aminopropyl)phenyl]-1-oxobutyl]amino]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-inden-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-1,3,3-dimethyl-5-sulfo-, inner salt. (CA INDEX NAME)

L6 ANSWER 57 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

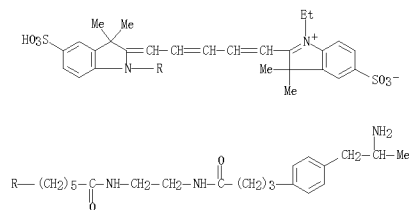


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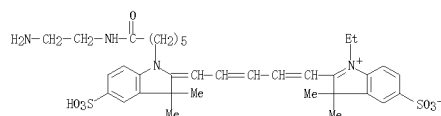


L6 ANSWER 57 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



IT 441068-06-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling with isothiocyanatoamphetamine trifluoroacetamide)

441068-06-0 CAPLUS
3H-Indolium, 2-[5-[1-[6-[(2-aminoethyl)amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-1,3,3-dimethyl-5-sulfo, inner salt (CA INDEX NAME)



IT 441068-13-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and coupling with Cy5EDA)

(Preparation and coupling with CySBA)
 441068-13-9 CAPLUS
 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-[[2-[[4-[3-[
 [methyl(2,2,2-trifluoroacetyl)amino]butyl]phenyl]-1-
 oxobutyl]amino]ethyl]amino]-6-oxohexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-
 pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfur, inner salt. (CA INDEX NAME)

L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:477143 CAPLUS

DN 137:104352

TI Novel Cyanine Dye-Labeled Dideoxynucleoside Triphosphates for DNA Sequencing

AU Duthie, R. Scott; Kalve, Inta M.; Samols, Sui Bi; Hamilton, Scott;
Livshin, Inna; Khot, Mahesh; Nampalli, Satyam; Kumar, Shiv; Fuller, Carl

CS Amersham Biosciences, Piscataway, NJ, 08855, USA

S0 Bioconjugate Chemistry (2002), 13 (4), 699-706

CODEN: BCCHES; ISSN: 1043-1802

PB American Chemical Society
DT Journal

DI Journal
LA English

LA English
AB Single

ADP, dNTPs, and phosphates. The terminators containing different spacer lengths were synthesized and evaluated for efficacy in DNA sequencing methods using a modified thermally stable DNA polymerase. The single color cyanine dye terminators were evaluated for efficacy in DNA sequencing methods using a modified thermally stable DNA polymerase. The single color cyanine dye terminators were evaluated for efficacy in DNA sequencing methods using a modified thermally stable DNA polymerase. The single color cyanine dye terminators were evaluated for efficacy in DNA sequencing methods using a modified thermally stable DNA polymerase.

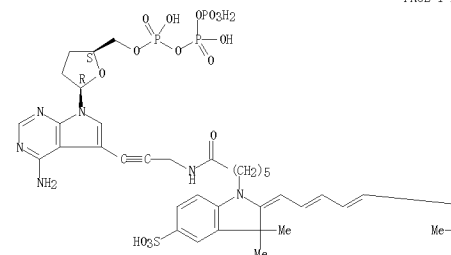
IT 235743-44-9P 235743-45-0P 235743-46-1P
235743-47-2P 235743-48-3P 235743-49-4P
235743-50-7P 235743-51-8P

RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of cyanine dye-labeled dideoxynucleoside triphosphates and their use for DNA sequencing)

RN	235743-44-9	CAPLUS
CN	3H-Indolium, 2-[5-1-[6-[3-[4-amino-7-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,6-trioxido-2,4,6-trioxo-3,5,7-triphosphabenzyl-1-yl)-2-furyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propen-1-yl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt	(CA INDEX NAME)

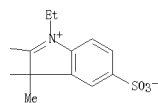
Absolute stereochemistry.
Double bond geometry unknown.

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L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

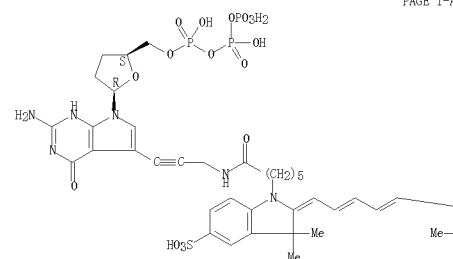
PAGE 1-B



RN 235743-45-0 CAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[[3-[2-amino-4,7-dihydro-4-oxo-7-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]oxymethyl]-2-furanyl]-3H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

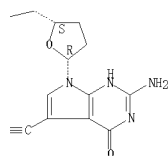
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

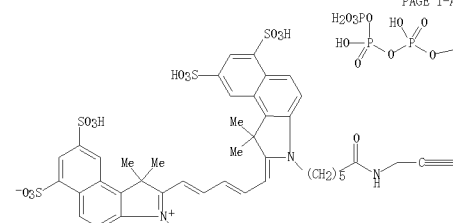
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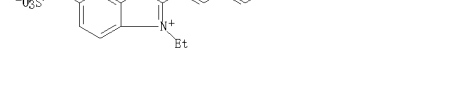
RN 235743-47-2 CAPLUS
CN 3H-Indolium, 2-[5-[3-[6-[[3-[4-amino-7-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]oxymethyl]-2-furanyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-di-sulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-di-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

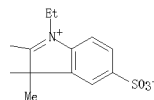


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L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

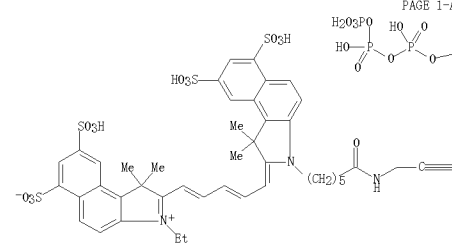
PAGE 1-B



RN 235743-46-1 CAPLUS
CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[3-[2-amino-4,7-dihydro-4-oxo-7-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]oxymethyl]-2-furanyl]-3H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-di-sulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-di-sulfo-, inner salt (CA INDEX NAME)

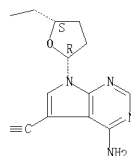
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

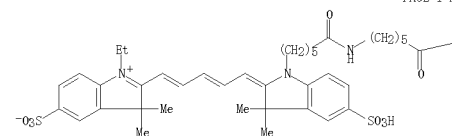
PAGE 1-B



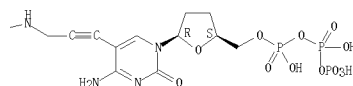
RN 235743-48-3 CAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[[6-[[3-[4-amino-1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]oxymethyl]-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-di-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



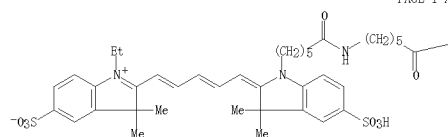
PAGE 1-B



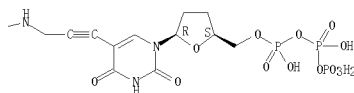
RN 235743-49-4 CAPLUS
CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-oxo-6-[[3-(1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]oxymethyl]-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]hexyl]amino]hexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
PAGE 1-A



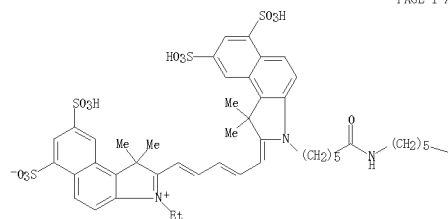
PAGE 1-B



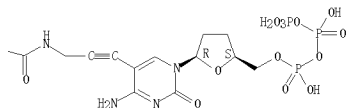
RN 235743-50-7 CAPLUS
CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-1,1-dimethyl-3-[6-oxo-6-[[[3-[1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxo-3,5,7-triphenyl-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]hexyl]amino]hexyl]-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

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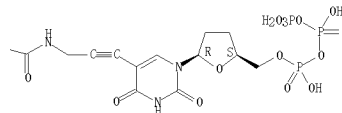


L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
PAGE 1-B



RE, CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

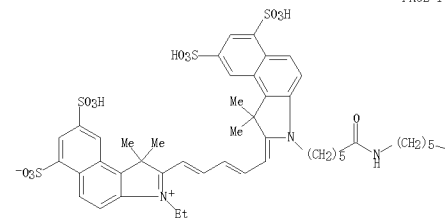
L6 ANSWER 58 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)
PAGE 1-B



RN 235743-51-8 CAPLUS
CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[[6-[3-[4-amino-1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxo-3,5,7-triphenyl-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A

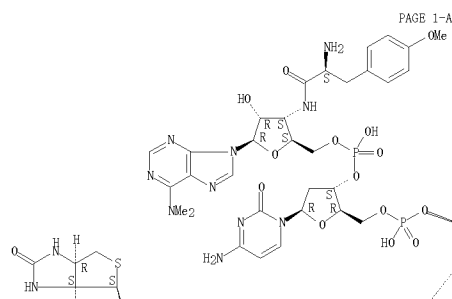


L6 ANSWER 59 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 2002:449855 CAPLUS
DN 137:30264
TI Fluorescent labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technologies for in vitro analysis of protein interactions
IN Yanagawa, Hiroshi; Doi, Nobuhide; Miyamoto, Etsuko; Takashima, Hideaki; Oyama, Rieko
PA Keio University, Japan
SO PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN, CNT 1

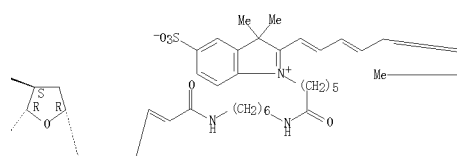
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002:046395	A1	2002:0613	WO 2001-JP10731	2001:1207 <--
W: CA, JP, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1350846	A1	2003:1008	EP 2001-999645	2001:1207 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 3750020	B2	2006:03:01	JP 2002-548112	2001:12:07
US 2005:0010028	A1	2005:01:13	US 2003-455453	2003:06:06
US 7150978	B2	2006:12:19		
PRAI JP 2000-373105	A	2000:12:07		
WO 2001-JP10731	W	2001:12:07		
AB A method for modifying protein C-terminal with a reagent which contains an acceptor region having a group capable of binding to a protein through a transpeptidation reaction and a modifying region containing a modifier linked to the acceptor region via a nucleotide linker, is disclosed. A template containing an ORF encoding a protein, a 5' untranslated region (UTR) containing a promoter and an enhancer located in the 5'-side of the ORF and a 3'-terminal region containing a PolyA sequence located in the 3'-side of the ORF is expressed to thereby synthesize a protein. The protein thus synthesized is then purified. The yield of the modified protein in the protein C-terminal modification method can be largely improved and protein interactions can be easily detected at an improved level in the method of detecting interactions among various mols. The authors developed and tested a simple method for fluorescence labeling and interaction anal. of proteins based on a highly efficient in vitro translation system combined with high-throughput technologies such as microarrays and fluorescence cross-correlation spectroscopy (FCCS). By use of puromycin analogs linked to various fluorophores through a deoxycytidylic acid linker, a single fluorophore can be efficiently incorporated into a protein at the carboxyl terminus during in vitro translation. The authors confirmed that the resulting fluorescently labeled proteins are useful for probing protein-protein and protein-DNA interactions by means of pulldown assay, DNA microarrays, and FCCS in model expts. These fluorescence assay systems can be easily extended to highly parallel anal. of protein interactions in studies of functional genomics. Interactions involving c-Fos, c-Jun, and DNA were studied by labeling with rhodamine green or Cy5 using puromycin-containing modifying agents.				
IT 436083-90-8 436083-91-9				
RL: MOD (Modifier or additive use); RGT (Reagent); RACT (Reactant or reagent); USES (Uses)				
(fluorescence labeling of protein C-terminal with puromycin analogs linked to fluorophores and high-throughput assay technol. for in vitro anal. of protein interactions)				
RN 436083-90-8 CAPLUS CN Adenosine, 2'-deoxy-5-[3-[[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,8-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]amino]hexyl]amino]-3-oxo-1-propenyl]-5'-O-[21-[[[3a,4,5,6a]hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-hydroxy-1-				

L6 ANSWER 59 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
oxido-10,17-dioxo-2-oxa-9,16-diaza-1-phosphaheneicos-1-yl]uridylyl-
(3'-5')-2'-deoxycytidyl-[(3'-5')-3'-[[(2S)-2-amino-3-(4-
methoxyphenyl)-1-oxopropyl]amino]-3'-deoxy-N,N-dimethyl- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.
Double bond geometry unknown.

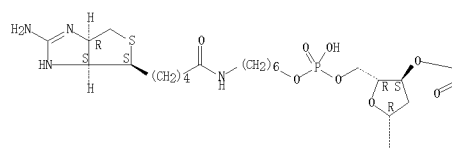


PAGE 1-B

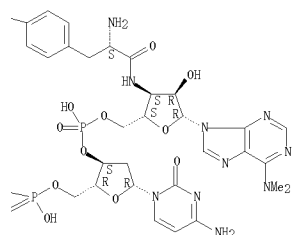


L6 ANSWER 59 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

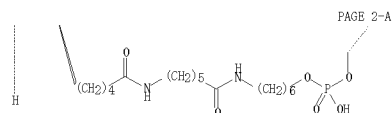
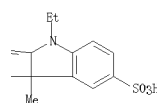
PAGE 1-A
MeO



PAGE 1-B



L6 ANSWER 59 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
PAGE 1-C



PAGE 2-B

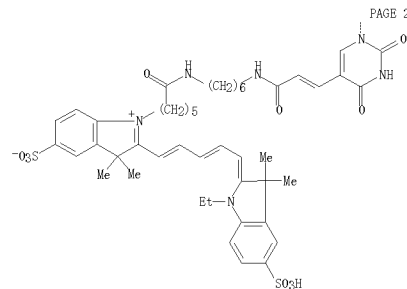


RN	436083-91-9	CAPLUS
CN	Adenosine, 5'-[1-[6-[[[5-(3(Sa,S,4S,6Sa)-2-amino-3a,4,6,6a-tetrahydro-1H-thieno[3,4-d][imidazo[4,5-f]oxo-1,2-epoxyethylamino]hexyl]hydrazinophosphoryl]-2-deoxy-5'-[4-[6-[[6-12-[5-[1-ethyl-1,3-dihydro-2,3-dimethyl sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolo]-1-oxohexyl]amino]hexyl]aminol]-3-oxo-1-propenyl]uidityl)]-3'-[3'-5'-2'-deoxyxytydityl]-3'-[3'-6'-3'-[(2S)-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]aminol]-3'-deoxy-N,N-dimethyl-, inner salt (GCI) (CA INDEX NAME)	

Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 59 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 2-A



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

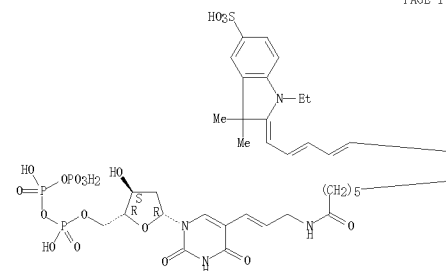
L6 ANSWER 60 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:405773 CAPLUS
 DN 136:403155
 TI Monofunctional indocyanine labeling reagents and improved method for their production
 IN Caputo, Giuseppe; Della, Ciana Leopoldo
 PA Innosense S.R.L., Italy
 SO Eur. Pat. Appl., 25 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 1209205	A1	20020629	EP 2000-126019	20001128 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EP 1211294	A1	20020605	EP 2001-127884	20011123 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CA 2363896	A1	20020628	CA 2001-2363896	20011127 <--
US 20020065421	A1	20020630	US 2001-995350	20011127 <--
US 6740755	B2	20040625		
AU 2001093440	A5	20020606	AU 2001-93440	20011127 <--
AU 783884	B2	20051222		
US 20050245734	A1	20051103	US 2004-822442	20040412
PRAI EP 2000-126019	A	20001128		
US 2001-995350	A1	20011127		

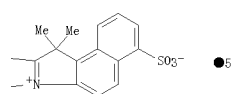
OS CASREACT 136:403155; MARPAT 136:403155
 AB A process for preparing an asym. indocyanine dye is characterized in that it comprises the steps of (a) reacting a first quaternized indolenine or substituted indolenine with RN:CH(CX)nNHR or hydrochloride thereof (n = 0, 1 R = Ph or substituted Ph, X H, halogen or alkyl, preferably Cl) in a solvent selected from the group consisting of acetic acid, acetic anhydride and mixts. thereof in the presence of acetyl chloride, to obtain an intermediate hemicyanine; and (b) further reacting this intermediate hemicyanine with a second quaternized indolenine or substituted indolenine different from the first indolenine. The process is characterized by high yields, readily obtained starting materials, and facile workup. The products are suitable as fluorescent labels emitting in the IR and near-IR region which can be excited by means of simple light-emitting or laser diodes and have high extinction coeffs. Thus, a hemicyanine was prepared from 1-ethyl-2,3,3-trimethylindolenium iodide, malonaldehyde dianil, and acetyl chloride; this product was then treated with 1-(3-acetoxypropyl)-2,3,3-trimethylindolenium iodide and then with 2-cyanoethyl tetraisopropylphosphorodiamidite to provide a fluorescent labeling dye. 431943-86-1P
 IT RL: IMP (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; production of monofunctional indocyanine fluorescent labeling dyes)
 RN 431943-86-1 CAPLUS
 CN 1H-Benz[e]indolium, 3-[6-[[3-[1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphoryl]oxy]phosphoryl]-P-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]-2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-1,1-dimethyl-6-sulfo-, inner salt, pentasodium salt (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 60 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
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RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

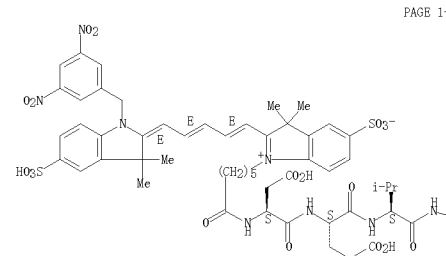
L6 ANSWER 61 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:276272 CAPLUS
 DN 136:306412
 TI Dye-labeled peptide and method
 IN Cook, Neil D.
 PA Amersham Pharmacia Biotech UK Ltd., UK
 SO PCT Int. Appl., 38 pp.
 CODEN: PLXXD2
 DT Patent
 LA English
 FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002029407	A2	20020411	WO 2001-GB4462	20011003 <--
WO 2002029407	A3	20020801		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GM, IE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001092118	A5	20020415	AU 2001-92118	20011003 <--
EP 1322664	A2	20030702	EP 2001-972342	20011003 <--
EP 1322664	B1	20060712		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AT 332916	T	20060815	AT 2001-972342	20011003
US 20040018579	A1	20040129	US 2003-398438	20030731 <--
PRAI GB 2000-24351	A	20001004		
WO 2001-GB4462	#	20011003		

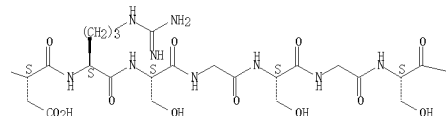
AB Disclosed is a peptide chain containing one or more dye mols. covalently bonded thereto, characterized in that at least one dye mol. is interposed in the amino sequence forming the peptide chain such that there is at least one amino acid covalently linked to and on each side of the said at least one dye mol. Also disclosed is an assay method employing the dye-labeled compds. of the invention. The fluorescence intensity of Cy5Q-Asp-Glu-Val-Asp-Arg-Ser-Gly-Ser-Gly-Ser-Cy3-Ala-Leu-Thr-OH (preparation given) was measured at intervals before and after addition of trypsin or endoproteinase AspN. Protease-catalyzed hydrolysis of the compound resulted in an increase in Cy3 signal as the quenching effect of Cy5Q was reduced.
 IT 408493-30-1P, Cy5Q-Asp-Glu-Val-Asp-Arg-Ser-Gly-Ser-Gly-Ser-Lys(Cy3)-Ala-Leu-Thr 408493-33-4DP, Fmoc-Lys(Cy3)-Ala-Leu-Thr, Wang resin-bound 408493-34-5DP, Asp-Glu-Val-Asp-Arg-Ser-Gly-Ser-Gly-Ser-Lys(Cy3)-Ala-Leu-Thr, Wang resin-bound
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (dye-labeled peptide and method)
 RN 408493-30-1 CAPLUS
 CN L-Threonine, N-[6-[2-[(1E,3E,5E)-5-[1-[(3,5-dinitrophenyl)methyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-oxohexyl]-L-α-aspartyl-L-α-glutamyl-L-valyl-L-α-aspartyl-L-arginyl-L-serylglycyl-L-serylglycyl-L-seryl-N6-[6-[2-[(1E,3E)-3-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-oxohexyl]-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-oxohexyl]-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-oxohexyl]-L-lysyl-L-alanyl-L-leucyl-, bis(inner salt) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

L6 ANSWER 61 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 PAGE 1-A

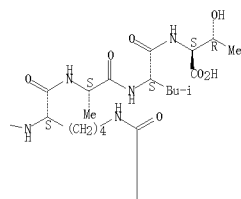


PAGE 1-B



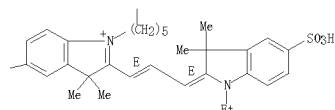
L6 ANSWER 61 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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PAGE 2-C

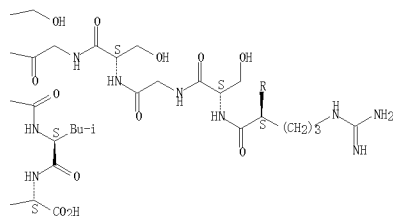


RN 408493-33-4 CAPLUS
CN L-Threonine, N6-[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxobenzyl]-N2-[(9H-fluoren-9-ylmethoxy)carbonyl]-L-lysyl-L-alanyl-L-leucyl-, inner salt (9CI) (CA INDEX NAME)

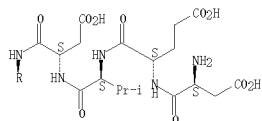
Absolute stereochemistry.
Double bond geometry as shown.

L6 ANSWER 61 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

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PAGE 2-A

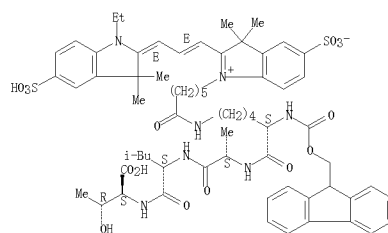


IT 408493-31-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dye-labeled peptide and method)

RN 408493-31-2 CAPLUS
CN 3H-Indolium, 1-[6-[[[(5S)-5-carboxy-5-[(9H-fluoren-9-ylmethoxy)carbonyl]amino]pentyl]amino]-6-oxohexyl]-2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propen-1-yl]-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

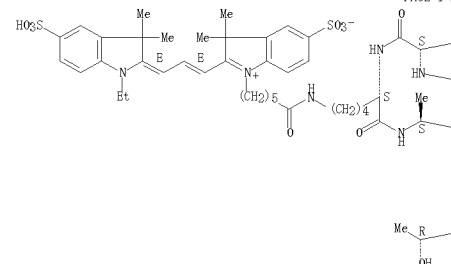
L6 ANSWER 61 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



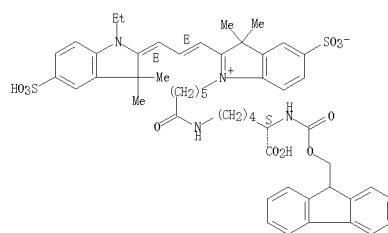
RN 408493-34-5 CAPLUS
CN L-Threonine, L-aspartyl-L-alpha-glutamyl-L-valyl-L-alpha-aspartyl-L-arginyl-L-serylglycyl-L-serylglycyl-L-seryl-N6-[6-[2-[(1E,3E)-3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]-L-lysyl-L-alanyl-L-leucyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

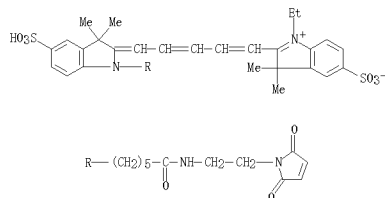
PAGE 1-A



L6 ANSWER 61 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



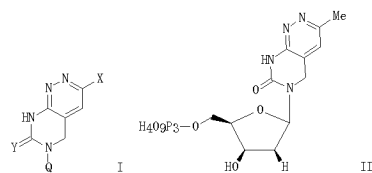
L6 ANSWER 62 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:135291 CAPLUS
 DN 136:137160
 TI Imaging of the fluorescence spectrum of a single fluorescent molecule by prism-based spectroscopy
 AU Suzuki, Yoshiaki; Tani, Tomomi; Sutoh, Kazuo; Kamimura, Shinji
 CS Department of Life Sciences, University of Tokyo, Graduate School of Arts and Sciences, Tokyo, Meguro, 153-8902, Japan
 SO FEBS Letters (2002), 512(1-3), 235-239
 CODEN: FEBSLE; ISSN: 0014-5793
 FE Elsevier Science B.V.
 DT Journal
 LA English
 AB We have devised a novel method to visualize the fluorescence spectrum of a single fluorescent mol. using prism-based spectroscopy. Equipping a total internal reflection microscope with a newly designed wedge prism, we obtained a spectral image of a single rhodamine red mol. attached to an essential light chain of myosin. We also obtained a spectral image of single-pair fluorescence resonance energy transfer between rhodamine red and Cy5 in a double-labeled myosin motor domain. This method could become a useful tool to investigate the dynamic processes of biomols. at the single-mol. level.
 IT 416853-49-1
 RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
 (Imaging of fluorescence spectrum of single fluorescent mol. by prism-based spectroscopy)
 RN 416853-49-1 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrrol-1-yl)ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-1,3,3-dimethyl-6-sulfo-, inner salt (CA INDEX NAME)



RE, CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 63 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:31473 CAPLUS
 DN 136:102623
 TI Preparation of nucleotide analogs and their enzymic incorporation into oligodeoxyribonucleotide duplexes
 IN Kumar, Shivi; McDougall, Mark; Nampalli, Satyam; Neagu, Constantin; Loakes, David; Brown, Dan
 PA Amersham Pharmacia Biotech UK Limited, UK
 SO PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN, CNT 1

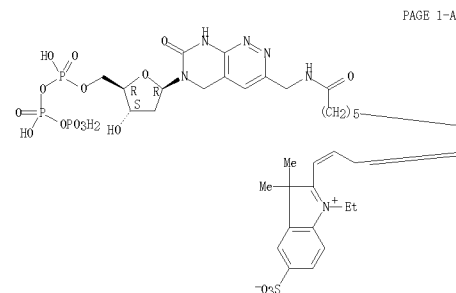
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002584	A1	20020110	WO 2001-GB2890	20010629 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW	LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG	CA 2412292	A1	20020110
EP 1296997	A1	20030402	CA 2001-2412292	20010629 <--
EP 1296997	B1	20060913	EP 2001-947617	20010629 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR	JP 200402701	T	20040129	JP 2002-507836
AT 339434	T	20061015	AT 2001-947617	20010629
ES 2271036	T3	20070416	ES 2001-947617	20010629
US 20020137695	A1	20020926	US 2001-895210	20010703 <--
US 6064068	EE	20031216		
PRAI GB 2000-16258	A	20000703		
WO 2001-GB2890	W	20010629		
OS MARPAT 136:102623				
GI				



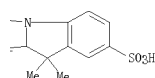
AB Nucleoside analogs I, wherein Q is H, sugar, sugar analog, nucleic acid backbone, backbone analog; Y = O, S, NR, where R is H, alkyl alkenyl, alkynyl; X is H, alkyl, alkenyl, alkynyl, aryl, heteroaryl or a combination thereof or, preferably, a reporter group, were prepared and incorporated into oligodeoxyribonucleotides using DNA polymerases. Thus,

L6 ANSWER 63 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 nucleoside II was prep. and incorporated into oligodeoxyribonucleotide duplexes using DNA polymerases.
 IT 383897-67-4P 383897-68-UP
 RL: BPN (Biosynthetic preparation); IMF (Industrial manufacture); RCT (Reactant); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)
 (Preparation of nucleoside analogs and their enzymic incorporation into oligodeoxyribonucleotide duplexes)
 RN 383897-67-4 CAPLUS
 CN 3H-Indolium, 2-[8-[1-[6-[[[6-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)p-hosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,5,6,7-tetrahydro-7-oxopyrimido[4,5-c]pyridazin-3-yl]methyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,8-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.



PAGE 1-A

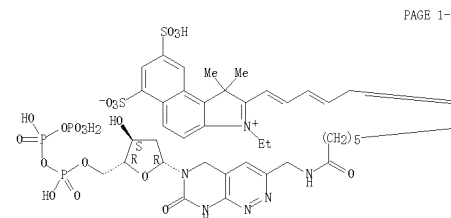


PAGE 1-B

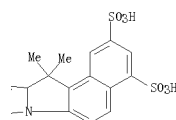
RN 383897-68-5 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[[6-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-

L6 ANSWER 63 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 pentofuranosyl]-1,5,6,7-tetrahydro-7-oxopyrimido[4,5-c]pyridazin-3-yl]methyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,8-pentadienyl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.



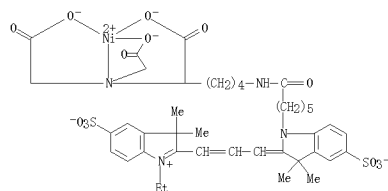
PAGE 1-A



PAGE 1-B

RE, CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 64 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:818766 CAPLUS
 DN 136:98660
 TI Site-specific incorporation of fluorescent probes into protein:
 Hexahistidine-tag-mediated fluorescent labeling with
 (Ni²⁺:Nitrilotriacetic Acid)-fluorochrome conjugates/fluorescent probes
 AU Kapanidis, Achilles N.; Bright, Yon W.; Bright, Richard H.
 CS Howard Hughes Medical Institute Waksman Institute and Department of
 Chemistry, Rutgers University, Piscataway, NJ, 08854, USA
 SO Journal of the American Chemical Society (2001), 123 (48),
 12123-12126
 CODEN: JACSAT; ISSN: 0002-7863
 PB American Chemical Society
 DT Journal
 LA English
 AB Structural and mechanistic characterization of proteins by fluorescence
 resonance energy transfer (FRET) requires the ability to incorporate
 fluorescent probes at specific, defined sites. In this article the
 authors report a strategy that permits labeling of termini or internal
 sites, that permits insitu labeling, and that is compatible with a large
 range of fluorochromes with different spectroscopic and photophys.
 properties. This strategy involves use of the "hexahistidine tag," i.e.,
 the amino acid sequence His₆ to target site-specific fluorescent
 labeling. The hexahistidine tag is known to interact tightly with
 transition-metal complexes, including Ni²⁺: nitrilotriacetic acid (Ni
 2+:NTA).
 IT 389059-71-6P 389059-72-7P
 RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST
 (Analytical study); PREP (Preparation)
 TI (site-specific incorporation of fluorescent probes into protein)
 RN 389059-71-6 CAPLUS
 CN Nickelate (2-), [2-[3-[1-[6-[[5-[bis[(carboxy-κO)methyl]amino-
 κN]-5-(carboxy-κO)pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-
 dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-
 sulfo-3H-indoliumato(5-)]-(9CI) (CA INDEX NAME)

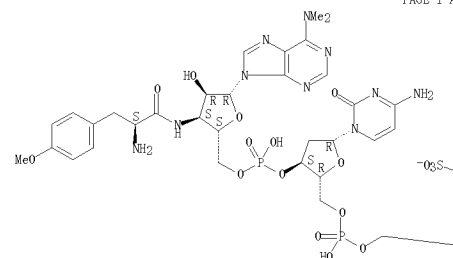


RN 389059-72-7 CAPLUS
 CN Nickelate (2-), [2-[3-[1-[6-[[5-[bis[(carboxy-κO)methyl]amino-
 κN]-5-(carboxy-κO)pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-
 dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-
 sulfo-3H-indoliumato(5-)]-(9CI) (CA INDEX NAME)

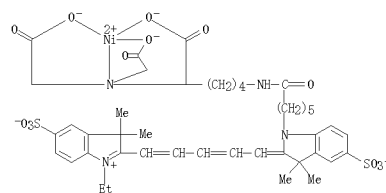
L6 ANSWER 65 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:575379 CAPLUS
 DN 135:341009
 TI Rapid functional analysis of protein-protein interactions by fluorescent
 C-terminal labeling and single-molecule imaging
 AU Yamaguchi, J.; Nemoto, N.; Sasaki, T.; Tokumasu, A.; Mimori-Kiyosue, Y.;
 Yagi, T.; Funatsu, T.
 CS Department of Physics, School of Science and Engineering, Waseda
 University, Shinjuku-ku, Tokyo, 169-8555, Japan
 SO FEBS Letters (2001), 502 (3), 79-83
 CODEN: FEBLAL; ISSN: 0014-5793
 PB Elsevier Science B.V.
 DT Journal
 LA English
 AB Detection of protein-protein interactions is a fundamental step to
 understanding gene function. Here we report sensitive and rapid method
 for assaying protein-protein interactions at the single-mol. level.
 Protein mols. were synthesized in a cell-free translation system in the
 presence of Cy5-puro, a fluorescent puromycin, using mRNA without a stop
 codon. The interaction of proteins thus prepared was visualized using a
 single-mol. imaging technique. As a demonstration of this method, a motor
 protein, kinesin, was labeled with Cy5-puro at an efficiency of about 90%,
 and the processive movement of kinesin along microtubules was observed by
 using total internal reflection microscopy. It took only 2 h from the
 synthesis of proteins to the functional anal. This method is applicable
 to the functional anal. of various kinds of proteins.
 IT 370884-42-7P
 RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST
 (Analytical study); PREP (Preparation)
 TI (protein-protein interactions by fluorescent C-terminal labeling and
 single-mol. imaging)
 RN 370884-42-7 CAPLUS
 CN Adenosine, 2'-deoxy-5'-O-[[[2-[2-[[[6-[2-[6-(1-ethyl-1,3-dihydro-3,3-
 dimethyl-5-sulfo-2H-indol-2-ylidene)-2,4-hexadienyl]-3,3-dimethyl-5-sulfo-
 3H-indolyl]-1-oxohexyl]amino]ethoxy]ethoxy]hydroxyphosphinyl]cytidyl-
 (3'-5')-3'-[[[2S]-2-amino-3-(4-methoxyphenyl)-1-oxopropyl]amino]-3'-
 deoxy-N,N-dimethyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



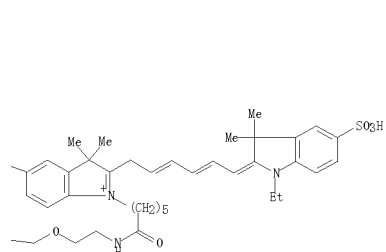
L6 ANSWER 64 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 65 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 66 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:507799 CAPLUS
 DN 135:93921
 TI Mobility-modifying cyanine dyes
 IN Menchen, Steven M.; Benson, Scott C.; Rosenblum, Barnett B.; Khan, Shaheer H.
 PA PE Corporation, USA
 SO PCT Int. Appl., 133 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 1

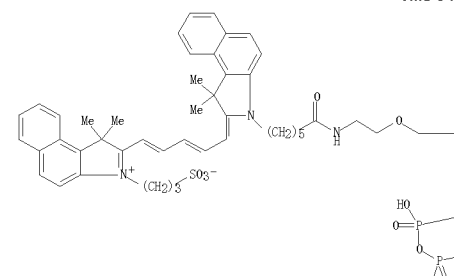
PAT. NO.	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001/049790	A2	2001/0712	WO 2001-US152	2001/0103
	WO 2001/049790	A3	2001/1206		
	W:	AE, AG, AI, AM, AT, AU, AZ, BA, BE, BG, BR, BY, BZ, CA, CH, CN, CU, CY, CZ, DE, DK, ES, FI, FR, GB, GD, GE, GR, GU, HK, HU, IL, IN, IT, JP, KE, KG, KI, KR, KZ, LK, LR, LS, LT, LU, LV, LY, MA, MG, MK, MN, MX, MY, MZ, NO, NZ, PL, PT, RU, RW, SA, SE, SG, SI, SK, SL, SM, SN, SV, TC, TH, TJ, TZ, UA, UG, UH, UI, UK, US, UZ, ZA, ZW			
	RW:	GH, GM, KE, DE, KS, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, CZ, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6716994	B1	2004/0406	US 2000-477270	2000/0104
	CA 2396067	A1	2001/0712	CA 2001-2396067	2001/0103
	EP 1244749	A2	2002/1002	EP 2001-901693	2001/0103
	EP 1244749	B1	2004/0901		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	JP 2003519275	T	2003/0617	JP 2001-550324	2001/0103
	AT 275172	T	2004/0915	AT 2001-901693	2001/0103
	ES 2225468	T3	2005/0316	ES 2001-901693	2001/0103
	US 20050107617	A1	2005/0619	US 2004-801092	2004/0315
PRAI	US 2000-477270	A	2000/0104		
	WO 2001-US152	W	2001/0103		

OS MARPAT 135:93921
 AB The present invention provides a novel class of fluorescent cyanine dye compds. that are modified at one of the heterocyclic ring nitrogen atoms with a mobility-modifying moiety that permits the electrophoretic mobilities of polynucleotides labeled with the mobility-modifying cyanine dyes to be adjusted or tuned in a predictable fashion while retaining enzymic activity. The ability to predictably tune the relative electrophoretic mobilities of the dyes permits the creation of sets of mobility-matched fluorescent dyes of a variety of structures for a variety of applications, including fluorescence-based 4-color nucleic acid sequencing reactions.
 IT 349491-69-6P 349491-74-3P 349491-78-7P
 RL: ARG (Analytical reagent use); IMF (Industrial manufacture); TEM (Technical or engineered material use); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (mobility-modifying fluorescent cyanine dyes for nucleic acid sequencing reactions)
 RN 349491-69-6 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[2-[[[3-[4-amino-7-(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxo-2,4,6-trioxo-3,5,7-triphosphahexpt-1-yl)-2-furanyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]oxyethyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt (CA INDEX NAME)

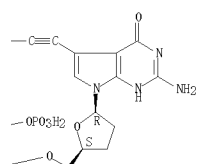
L6 ANSWER 66 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 , inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



PAGE 2-A

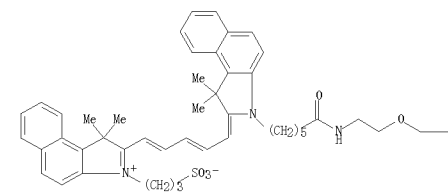


RN 349491-78-7 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-1,1-dimethyl-3-[6-oxo-6-[[2-[[[3-[1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-

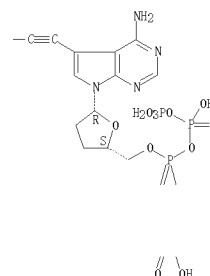
L6 ANSWER 66 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



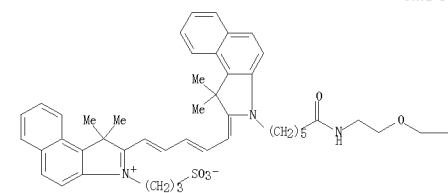
PAGE 2-B

RN 349491-74-3 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[2-[[[3-[2-amino-4,7-dihydro-4-oxo-7-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxo-2,4,6-trioxo-3,5,7-triphosphahexpt-1-yl)-2-furanyl]-3H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]oxyethyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt (CA INDEX NAME)

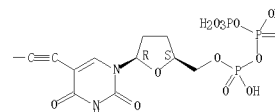
L6 ANSWER 66 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 tetrahydroxy-3,5,7-trioxo-2,4,6-trioxo-3,5,7-triphosphahexpt-1-yl)-2-furanyl]-3H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]oxyethyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-1,1-dimethyl-3-(3-sulfopropyl)-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



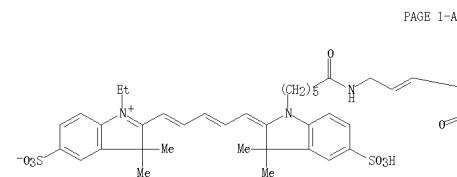
L6 ANSWER 67 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:435043 CAPLUS
 DN 135:43136
 TI Detection of transmembrane potentials by fluorescent resonance energy transfer (FRET) between a hydrophobic fluorescent ion and a chromophore
 IN Tsien, Roger Y.; Gonzalez, Jesus E., III
 PA The Regents of the University of California, USA
 SO PCT Int. Appl., 154 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001/042211	A2	2001/0614	WO 2000-US3739	2000/1212 <--
WO 2001/042211	A3	2002/0117		
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US 2002/0137201	A1	2002/0926	US 1999-378534	1999/0820 <--
US 6596522	B2	2003/0722		
CA 2393562	A1	2001/0614	CA 2000-2396562	2000/1212 <--
AU 2001/029930	A	2001/0618	AU 2001-20960	2000/1212 <--
AU 783487	B2	2005/1103		
JP 2003/18246	T	2003/0603	JP 2001-543512	2000/1212 <--
EP 1409456	A2	2004/0421	EP 2000-984287	2000/1212 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
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US 1997-765860	A1	1997/0508		
WO 2000-US3739	W	2000/1212		

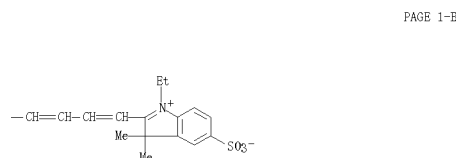
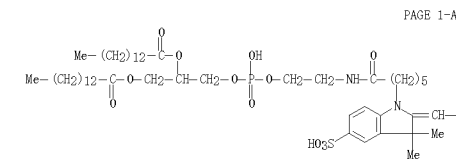
OS MARPAT 135:43136
 AB Methods and compns. are provided for detecting changes in membrane potential in membranes biol. systems. In one aspect, the method comprises: (a) providing a living cell with a first reagent comprising a charged hydrophobic mol. which is typically a fluorescence resonance energy transfer (FRET) acceptor or donor, or is a quencher and is capable of redistributing within the membrane of a biol. membrane in response to changes in the potential across the membrane; (b) providing the cell with a second reagent that can label the first face or the second face of a biol. membrane within the cell; (c) detecting light emission from the first reagent or the second reagent. One aspect of this method involves monitoring membrane potential changes in subcellular organelle membranes in a living cell. Another aspect of the invention is the use of certain embodiments of the method for the screening of test chems. for activity to modulate the activity of a target ion channel. Another aspect of the present invention is a transgenic organism comprising a first reagent that comprises a charged hydrophobic fluorescent mol., and a second reagent comprising a bioluminescent or naturally fluorescent protein.
 IT 186776-37-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (Detection of transmembrane potentials by fluorescent resonance energy transfer (FRET) between a hydrophobic fluorescent ion and a chromophore)
 RN 186776-37-4 CAPLUS

L6 ANSWER 68 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:182053 CAPLUS
 DN 135:339932
 TI Progress towards single-molecule sequencing: enzymatic synthesis of nucleotide-specifically labeled DNA
 AU Augustin, M. A.; Ankenbauer, W.; Angerer, B.
 CS Institut für Biophysik und Physikalische Biochemie, Universität Regensburg, Regensburg, D-93061, Germany
 SO Journal of Biotechnology (2001), 86 (3), 289-301
 CODEN: JBTB4; ISSN: 0168-1656
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB The enzymic incorporation of modified dNTPs into a growing DNA strand has intensively been studied. Modifications were detectable reporter groups such as digoxigenin or biotin, fluorochromes or aliphatic side chains covalently attached to the base. Incorporation efficiencies were determined with several DNA polymerases using linear primer-extension reactions followed by denaturing PAGE as a high-resolution detection system. The authors describe the enzymic synthesis of DNA consisting of modified nucleotides exclusively. A defined template-primer system allows us to trace incorporation: (1) in up to 18 neighboring positions for several dNTP-derivs.; or (2) in stretches of DNA of up to 40 bases in length with complete substitution of all four natural dNTPs by differently modified counterparts. Synthesized DNA mols. are shown to particularly exhibit dramatically altered physico-chemical properties by contrast with native DNA. These results provide a fundamental data set for probe generation in single-mol. DNA sequencing (SMS).
 IT 174817-55-1 306274-02-2 306274-03-3
 RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses) (enzymic synthesis of nucleotide-specifically labeled DNA in relation to single-mol. sequencing)
 RN 174817-55-1 CAPLUS
 CN 3H-Indolium, 2-[6-[1-[6-[[[3-[1-[2-deoxy-5-O-[hydroxy[[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-P-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

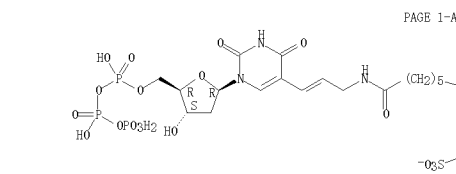


L6 ANSWER 67 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 CN 3H-Indolium, 2-[6-[1,3-dihydro-1-[[1-hydroxy-11-oxido-6,17-dioxo-14-[(1-oxotetradecyl)oxy]-10,12,16-trioxa-7-aza-11-phosphatetracont-1-yl]-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



L6 ANSWER 68 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B
 RN 306274-02-2 CAPLUS
 CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]-1-oxohexyl]amino]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)
 Absolute stereochemistry.
 Double bond geometry unknown.

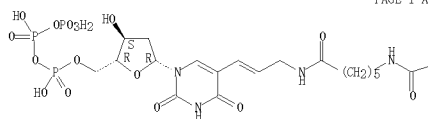


PAGE 1-B
 RN 306274-03-3 CAPLUS
 CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]-1-oxohexyl]amino]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)
 Absolute stereochemistry.
 Double bond geometry unknown.

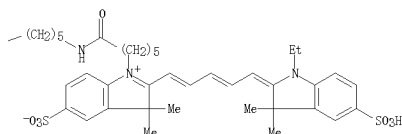
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 68 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 69 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:178461 CAPLUS

DN 134:217985

TI Method for 3' end-labeling ribonucleic acids

IN Ach, Robert A.

PA Agilent Technologies Inc., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6201112	B1	20010313	US 1999-359564	19990722 <--
US 20010009762	A1	20010726	US 2001-802358	20010309 <--
US 6723509	B2	20040420		
PRAI US 1999-359564	A3	19990722		

AB Methods of end-labeling ribonucleic acids with non-radioactively labeled ribonucleotides, and particularly fluorescently labeled ribonucleotides, are provided. In the subject methods, a RNA is contacted with a non-radioactively labeled ribonucleotide in the presence of a prokaryotic, usually bacterial, poly(A) polymerase under conditions sufficient for covalent bonding of the labeled ribonucleotide to the 3' end of the RNA to occur. Also provided are kits for practicing the subject method. The subject methods and kits find use in a variety of applications where labeling of the 3' end of a RNA with a non-radioactive label, particularly a fluorescent label, is desired.

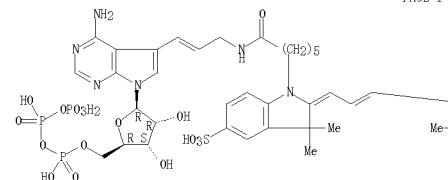
IT 329320-43-6
RL: BFR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(method for 3' end-labeling ribonucleic acids)

RN 329320-43-6 CAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[[3-[4-amino-7-[5-O-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]-B-D-ribofuranosyl]-TH-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propen-1-yl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

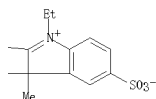
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 69 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 70 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2001:2116 CAPLUS

DN 134:204544

TI Fluorescence intensity multiple distributions analysis: concurrent

determination of diffusion times and molecular brightness

AU Palo, Kaupo; Mets, Ulo; Jager, Stefan; Kask, Peeti; Gall, Karsten

CS EVOTEC BioSystems AG, Hamburg, D-22525, Germany

SO Biophysical Journal (2000), 79(6), 2858-2866

CODEN: BIOJAU; ISSN: 0006-3496

PB Biophysical Society

DT Journal

LA English

AB Fluorescence correlation spectroscopy (FCS) has proven to be a powerful technique with single-mol. sensitivity. Recently, it has found a complement in the form of fluorescence intensity distribution anal. (FIDMA). Here we introduce a fluorescence fluctuation method that combines the features of both techniques. It is based on the global anal. of a set of photon count number histograms, recorded with multiple widths of counting time intervals simultaneously. This fluorescence intensity multiple distributions anal. (FIDMA) distinguishes fluorescent species on the basis of both the specific mol. brightness and the translational diffusion time. The combined information, extracted from a single measurement, increases the readout effectively by one dimension and thus breaks the individual limits of FCS and FIDMA. In this paper a theory is introduced that describes the dependence of photon count number distributions on diffusion coeffs. The theory is applied to a series of photon count number histograms corresponding to different widths of counting time intervals. Although the ability of the method to determine specific brightness values, diffusion times, and concns. from mixts. is demonstrated on simulated data, its extnl. utilization is shown by the determination of the binding constant of a protein-ligand interaction exemplifying its broad applicability in the life sciences.

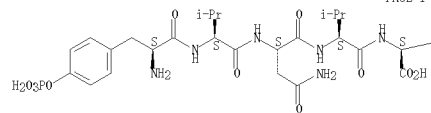
IT 328932-87-2
RL: ANT (Analyte); BFR (Biological process); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(Grb2 protein SH2 domain-phosphopeptide interaction: concurrent determination of diffusion times and mol. brightness using fluorescence intensity multiple distributions anal. and applications to protein-ligand interaction)

RN 328932-87-2 CAPLUS

CN L-Lysine, O-phosphono-L-tyrosyl-L-valyl-L-asparaginyl-L-valyl-N6-[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]-, inner salt (9CI) (CA INDEX NAME)

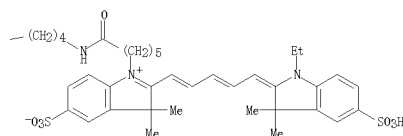
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 70 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE.FORMATL6 ANSWER 71 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:881241 CAPLUS

DN 134:43377

TI pH-sensitive cyanine dyes as reactive fluorescent reagents

IN Mulimadar, Ratnakar; Smith, John Anthony

PA Carnegie Mellon University, USA; Amersham Pharmacia Biotech UK Ltd.

SO PCT Int. Appl., 66 pp.

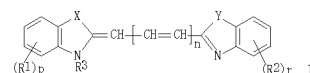
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000075237	A2	20001214	WO 2000-US15682	20000608 <--
WO 2000075237	A3	20020411		
W: AE, AL, AM, AT, AU, AZ, BA, BE, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GR, GU, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, NI, NO, TN, TD, TG				
CA 2375740	A1	20001214	CA 2000-2375740	20000608 <--
EP 1212375	A2	20020612	EP 2000-942696	20000608 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 200501540	T	20050114	JP 2001-502512	20000608 <--
EP 1394219	A1	20040303	EP 2003-22839	20000608 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRAI US 1999-138297P	P	19990609		
EP 2000-942696	A3	20000608		
WO 2000-US15682	W	20000608		
OS MARPAT 134:43377				
GI				



AB The water-soluble cyanine dyes (I; R1, R2 = H, aminomethyl, sulfonate, phosphate, phosphonate, quaternary ammonium, NO2, carboxyalkyl, NCS, alkoxycarbonylaminoethyl; R3 = H, organic group; X, Y = S, O, dialkylmethylene; = 0-3; p, r = 0-4) and their salts and protonated derivs. are fluorescent labels sensitive to acid or base and useful in intracellular environments.

IT 312961-76-6P

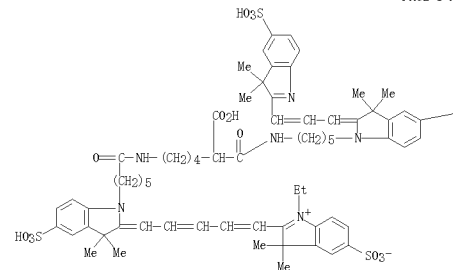
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; pH-sensitive cyanine dyes for reactive fluorescent biol. labels)

RN 312961-76-5 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[5-carboxy-6-[[[5-[2-[3-(3,3-dimethyl-5-sulfo-3H-indol-2-yl)-2-propen-1-ylidene]-2,3-dihydro-3,3-dimethyl-5-sulfo-1H-indol-1-yl]pentyl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-

L6 ANSWER 71 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
sulfo-, inner salt (CA INDEX NAME)

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PAGE 1-B

-SO3H

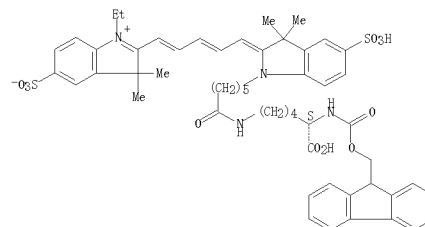
IT 312961-84-6P 312961-85-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; pH-sensitive cyanine dyes for reactive fluorescent biol. labels)

RN 312961-84-5 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[5S]-5-carboxy-5-[[[9H-fluoren-9-ylmethoxy]carbonyl]amino]pentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 71 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

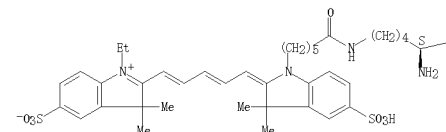


RN 312961-85-6 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[5S]-5-amino-5-carboxypentyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

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PAGE 1-B

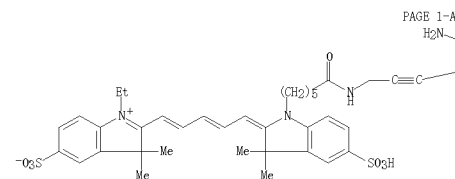
-CO2H

L6 ANSWER 72 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:825711 CAPLUS
 DN 134:159683
 TI Identification of single fluorescently labeled mononucleotide molecules in solution by spectrally resolved time-correlated single-photon counting
 AU Herten, D. P.; Timmefeld, P.; Sauer, M.
 CS Physikalisch-Chemisches Institut, Universität Heidelberg, Heidelberg, 69120, Germany
 SO Applied Physics B: Lasers and Optics (2000), 71 (5), 765-771
 CODEN: APBOEM; ISSN: 0946-2171
 PB Springer-Verlag
 DT Journal
 LA English
 AB We describe a method to identify single dye-labeled mononucleotide mols. in solution with high classification probability based on confocal microscopy in combination with spectrally and time-resolved fluorescence detection with two detectors. For efficient excitation of the labeled mononucleotide mols. JA133-dUTP, JA169-dUTP, Cys-dCTP, and JA242-dUTP a short-pulse diode laser emitting at 634 nm with a repetition rate of 64 MHz was applied. The time-resolved fluorescence signals of individual mols. were analyzed and identified by a maximum likelihood estimator (MLE). Scatter plots of spectrally and time-resolved fluorescence data demonstrated the existence of four distinct populations with sym. shape. The distributions of each of the mononucleotide conjugates were determined by fitting a superposition of two independent Gaussians. Taking only those single-mol. bursts which contain more than 50 photon counts, three labeled mononucleotide mols. were identified in solution by spectrally and time-resolved fluorescence spectroscopy with a probability of correct classification of ~ 99%.

IT 325747-77-1
 RL: ANT (Analyte); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study)
 (Identification of single fluorescently labeled mononucleotide mols. in solution by spectrally resolved time-correlated single-photon counting)

RN 325747-77-1 CAPLUS
 CN 3H-Indolium, 2'-[5-[1-[6-[[3-[4-amino-1-[2-deoxy-5'-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.



L6 ANSWER 73 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:814658 CAPLUS
 DN 133:345552
 TI High-density labeling of DNA with modified or chromophore-tagged nucleotides using DNA polymerases
 AU Muehlecker, Klaus; Angerer, Bernhard; Seela, Frank; Ankenbauer, Waltraud; Augustin, Martin; Gumbowski, Karin; Zulauf, Matthias
 PA Roche Diagnostics G.m.b.H., Germany
 SO PCT Int. Appl., 56 pp.
 CODEN: PIRKX2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000068422	A2	20001116	WO 2000-EP4036	20000505 <--
WO 2000068422	A3	20020404		
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1208230	A2	20020529	EP 2000-306714	20000505 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003532373	T	20031105	JP 2000-616387	20000505 <--
AT 311477	T	20051215	AT 2000-936714	20000505
ES 2252011	T3	20060616	ES 2000-936714	20000505
US 20040214221	A1	20041028	US 2004-849072	20040519 <--
PRAI EP 1999-108601	A	19990507		
WO 2000-EP4036	W	20000505		
US 2002-19850	B1	20020821		

AB Subjects of the inventions are methods for enzymic DNA labeling. Nucleotides modified to carry functional or detectable groups are incorporated into newly synthesized DNA by DNA polymerases. DNA is synthesized from modified nucleoside triphosphates by DNA polymerases such that the newly synthesized DNA consists exclusively of modified nucleotides or contains modified nucleotides in high d. There are provided modified nucleoside triphosphates which are incorporated by DNA polymerases and a group of DNA polymerases which incorporate these nucleoside triphosphates in high d. Thus, modified nucleoside triphosphates, such as 7-aminopentynyl-7-deazaadenosine-2'-deoxyribonucleoside-5'-triphosphate, were synthesized. Incorporation of this and other modified nucleoside triphosphates into DNA in the presence of template, primer, and Carboxydotherrus hydrogeniformans, Pyrococcus, Thermococcus gorgonarius (Tgo), Pyrococcus woelii (Pwo), or a blend of Tgo and Pwo polymerases was analyzed. The combination of Tgo and Pwo polymerases seemed to be most effective.

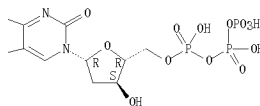
IT 306274-02-2P 306274-03-3P 306274-04-4P
 RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
 (High-d. labeling of DNA with modified or chromophore-tagged nucleotides using DNA polymerases)

RN 306274-02-2 CAPLUS
 CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]-1-oxohexyl]amino]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 72 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

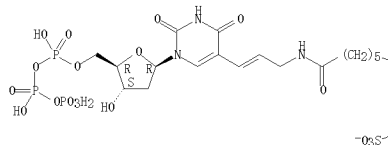
PAGE 1-B



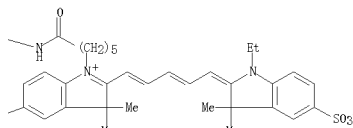
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 73 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



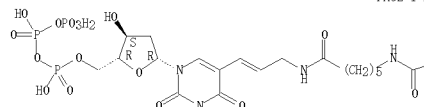
PAGE 1-B



RN 306274-03-3 CAPLUS
 CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[[6-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]-1-oxohexyl]amino]-1-propenyl]-, inner salt (9CI) (CA INDEX NAME)

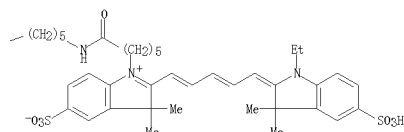
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 73 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

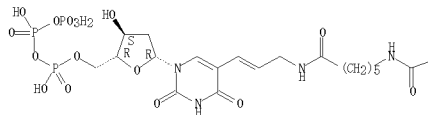
PAGE 1-B



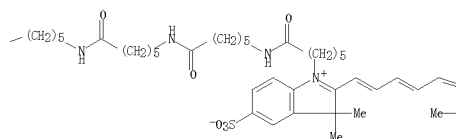
RN 306274-04-4 CAPLUS
 CN Uridine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[38-[2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-6-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-6-sulfo-3H-indolio]-5,12,19,26,33-pentaazo-4,11,18,25,32-pentaazaoctatriacot-1-en-1-yl]-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



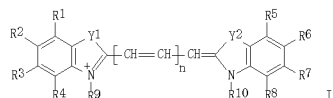
PAGE 1-B



L6 ANSWER 74 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:623740 CAPLUS
 TI 133:224250
 IN Cyanine dyes and synthesis methods thereof
 IN Randall, Malcolm Harry; Buzby, Philip Richard; Erickson, Thomas Joseph;
 Trometer, Joseph David; Miller, Joseph John, Jr.; Ahern, David George;
 Bobrow, Mark Norman
 PA Nen Life Science Products, Inc., USA
 SO U.S., 12 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 FAN, CNT 1

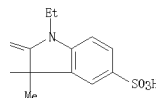
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6114350	A	20000905	US 1999-294678	19990419 <--
US 6197956	B1	20010306	US 1999-449633	19991124 <--
US 6204389	B1	20010320	US 1999-448241	19991124 <--
US 6234644	B1	20010501	US 1999-448242	19991124 <--
CA 2335240	A1	20001026	CA 2000-2335240	20000419 <--
WO 2000063296	A2	20001026	WO 2000-US10553	20000419 <--
WO 2000063296	A3	20010215		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, US, UG, VN, YU, ZA, ZW				
RW: GH, GM, HE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GT, ML, MR, NE, SN, TD, TG				
EP 1112254	A2	20010704	EP 2000-923522	20000419 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002542265	T	20021210	JP 2000-612377	20000419 <--
AU 767368	B2	20031106	AU 2000-43631	20000419 <--
US 20010020098	A1	20010906	US 2001-824316	20010402 <--
US 6437141	B2	20020820		
PRAI US 1999-294678	A3	19990419		
US 1999-448242	A1	19991124		
WO 2000-US10553	W	20000419		
OS CASREACT 133:224250; MARPAT 133:224250				
GI				



AB Cyanine dyes (I) are prepared where R1-R8 are each independently selected from a group consisting of H, C1-C6 alkyl group, and C0-C4 alkyl having a hydrophilic substituent; R9 and R10 are selected from protected thiol, amine or hydroxyl substituent capable of reacting with a target mol. through a nucleophilic displacement mechanism; Y1 and Y2 = substituted C, O, N, S; and n = 1. The dyes are useful in labeling a variety of target mols. Processes are described for synthesizing suitable heterocyclic and indole derivs. as precursors for the cyanine dyes.
 IT 291314-67-EP 291314-71-IP

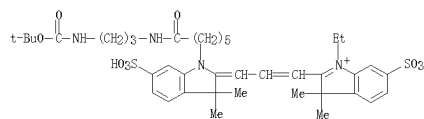
L6 ANSWER 73 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-C



L6 ANSWER 74 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

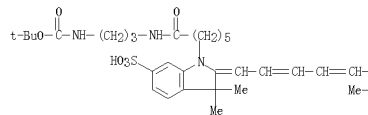
RL: SPN (Synthetic preparation); PREP (Preparation)
 (dye; prepn. of cyanine dyes and their use as labels for target mols.)
 RN 291314-67-5 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[[3-[[[1,1-dimethylethoxy]carbonyl]amino]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-6-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-6-sulfo-, inner salt, potassium salt (1:1) (CA INDEX NAME)



● K

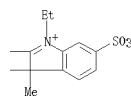
RN 291314-71-1 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[[3-[[[1,1-dimethylethoxy]carbonyl]amino]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-6-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-6-sulfo-, inner salt, potassium salt (1:1) (CA INDEX NAME)

PAGE 1-A



● K

PAGE 1-B



RE, CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 75 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:605919 CAPLUS
 DN 133:346634
 TI Anomalous Fluorescence Enhancement of Cy3 and Cy3.5 versus Anomalous Fluorescence Loss of Cy5 and Cy7 upon Covalent Linking to IgG and Noncovalent Binding to Avidin
 AU Gruber, Hermann J.; Hahn, Christoph D.; Kada, Gerald; Riener, Christian K.; Harms, Gregory S.; Ahrer, Werner; Dax, Thomas G.; Knaus, Hans-Guenther
 CS Institute of Biophysics and Institute of Chemistry, J. Kepler University, Linz, A-4040, Austria
 SO Bioconjugate Chemistry (2000), 11 (5), 696-704
 CODEN: BCCHES; ISSN: 1043-1802
 PB American Chemical Society
 DT Journal
 LA English

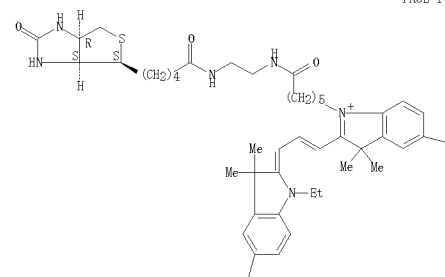
AB This study provides a critical examination of protein labeling with Cy3, Cy5, and other Cy dyes. Two alternate situations were tested. (i) Antibodies were covalently labeled with Cy dye succinimidyl ester at various fluorophore/protein ratios and the fluorescence of the labeled antibodies was compared to that of free Cy dye. (ii) Fluorescent biotin derivs. were synthesized by derivatizing ethylenediamine with one biotin and one Cy3 (or Cy5) residue. The fluorescence properties of these biotin-Cy dye conjugates were examined at all ligand/(strept)avidin ratios ($0 \leq n \leq 4$). The results showed an antonounding discrepancy between Cy3 and Cy5: Cy3-labeled antibodies fluoresced very well, even at high Cy3/protein ratios, and the same applied to (strept)avidin with up to four bound biotin-Cy3 conjugates. In contrast, antibodies with six covalently bound Cy5 labels (obtained with the recommended procedure) were almost nonfluorescent, only at 2-3 Cy5 labels/IgG some moderate fluorescence was obtained. By analogy, the biotin-Cy3 conjugate fluoresced intensely, even at high ligand/avidin ratio, in contrast to the weakly fluorescing biotin-Cy5 conjugate. Three mechanisms are responsible for the discrepancy between Cy3 and Cy5. (i) Attachment of Cy3 to a protein's surface causes an anomalous enhancement in fluorescence (by 2-3-fold) while no enhancement occurs with Cy5. (ii) Mutual quenching of IgG-bound Cy dyes by resonance energy transfer is much more pronounced for Cy5 labels than for Cy3. (iii) In IgG with six bound Cy5 labels, about one-third of the labels adopt a nonfluorescent state which is characterized by a large UV-vis absorption maximum at 600 nm instead of at 650 nm. Cy3.5 was found to mimic the properties of Cy3, while Cy7, and to some extent also Cy5.5, were similar to Cy5. In conclusion the Cy dye series is divided into two groups: Antibodies with multiple Cy3 or Cy3.5 labels yield bright fluorescence while extensive quenching occurs in antibodies labeled with Cy5 and Cy7.

IT 305372-35-4F 305372-36-5P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (Anomalous Fluorescence enhancement of Cy3 and Cy3.5 vs. anomalous fluorescence loss of Cy5 and Cy7 upon covalent linking to IgG and noncovalent binding to avidin)
 RN 305372-35-4 CAPLUS
 CN 3H-Indolium, 2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propen-1-yl]-1-[6-[[2-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]ethyl]amino]-6-oxohexyl]-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 75 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

~SO3-

HO3S

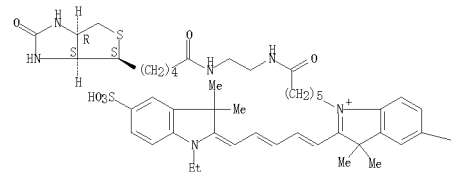
PAGE 2-A

RN 305372-36-5 CAPLUS
 CN 3H-Indolium, 2-[5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,5-pentadien-1-yl]-1-[6-[[2-[[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]amino]ethyl]amino]-6-oxohexyl]-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 75 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

~SO3-

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 76 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:572765 CAPLUS
 DN 133:335456
 TI A strategy for highly parallel synthesis of tyrosine- and histidine-reactive labeling reagents
 AU Lopez-Calle, E.; Fries, J. R.; Riester, D.; Winkler, D.
 CS EVOTEC BioSystems AG, Hamburg, D-22525, Germany
 SO Chimica Oggi (2000), 18 (6), 28-32
 CODEN: CHOGDE; ISSN: 0392-839X
 PB TeknoScienze
 DT Journal
 LA English
 OS CASREACT 133:335456
 GI

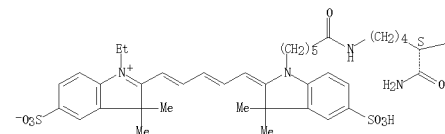
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The authors described a method for the fast and effective synthesis of tyrosine- and histidine-reactive labeling reagents, some of them being fluorescent. The labeling reagents were derivatized with lysine and p-aminobenzoic acid on solid phase. For example, tetramethylrhodamine derivative I was prepared; the free amino moiety in I was converted to its diazonium form in-situ, and then, reacted with tyrosine to give the labeled tyrosine II. Thus, using this procedure, histidine, atenolol, a peptide (neurotensin) and some proteins (chymotrypsin, streptavidin, alkaline phosphatase, etc.) were similarly labeled.

IT 304449-97-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of tyrosine- and histidine-reactive labeling reagents for peptides and proteins)
 RN 304449-97-6 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[[(5S)-6-amino-5-[(4-aminobenzoyl)amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-1,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

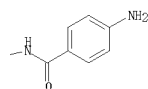
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 76 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:397304 CAPLUS

DN 133:173509

TI Comparative single-molecule and ensemble myosin enzymology: sulfoindocyanine ATP and ADP derivatives

AU Otsu, Kazuhiro; Eccleston, John F.; Anson, Michael; Kikumoto, Mahito; Davis, Colin T.; Reid, Gordon P.; Ferenczi, Michael A.; Corrie, John E. T.; Yamada, Akira; Nakayama, Haruto; Trentham, David R.

CS Communications Research Laboratory, Kansai Advanced Research Center, Kobe, 651-2492, Japan

SO Biophysical Journal (2000), 78(6), 3048-3071

CODEN: BIOJAU; ISSN: 0006-3496

PB Biophysical Society

DT Journal

LA English

AB Single-mol. and macroscopic reactions of fluorescent nucleotides with myosin have been compared. The single-mol. studies serve as paradigms for enzyme-catalyzed reactions and ligand-receptor interactions analyzed as individual stochastic processes. Fluorescent nucleotides, called Cy3-EDA-ATP and Cy5-EDA-ATP, were derived by coupling the dyes Cy3.29.0H and Cy5.29.0H with 2'-(3')-O-[N-(2-aminoethyl)carbamoyl]ATP (EDA-ATP). The ATP (ADP) analogs were separated into their resp. 2' - and 3' -O-isomers, the interconversion rate of which was 30(0H)- s-1 (0.016 hr-1 at pH 7.1) at 22° C. Macroscopic studies showed that 2'-(3')-O-substituted nucleotides had properties similar to those of ATP and ADP in their interactions with myosin, actomyosin, and muscle fibers, although the ATP analogs did not relax muscle as well as ATP did. Significant differences in the fluorescence intensity of Cy3-nucleotide 2' - and 3' -O-isomers in free solution and when they interacted with myosin were evident. Single-mol. studies using total internal reflection fluorescence microscopy showed that reciprocal mean lifetimes of the nucleotide analogs interacting with myosin filaments were one- to several-fold greater than predicted from macroscopic data. Kinetic and equilibrium data of nucleotide-(acto)myosin interactions derived from single-mol. microscopy now have a biochem. and physiol. framework. This is important for single-mol. mech. studies of motor proteins.

IT 288628-76-2P 288628-78-4P 288629-86-7P

RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (comparative single-mol. and ensemble myosin enzymol. using sulfoindocyanine ATP and ADP derivs.)

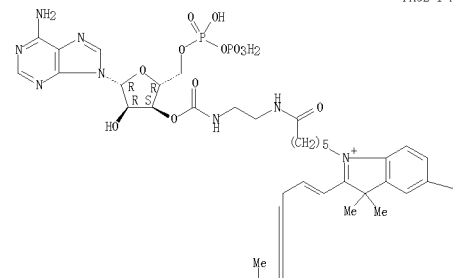
RN 288628-76-2 CAPLUS

CN Adenosine 5'-(trihydrogen diphosphate), 3'-[[2-[[6-[2-[3-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]amino]ethyl]carbamate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

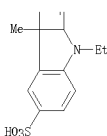
L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

-SO3-



PAGE 2-A

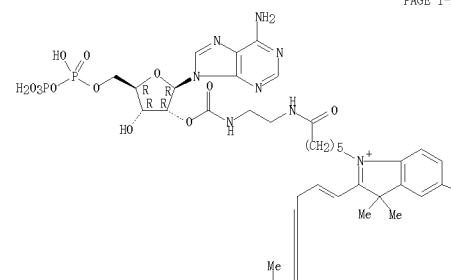
RN 288628-78-4 CAPLUS
CN Adenosine 5'-(trihydrogen diphosphate), 3'-[[2-[[6-[2-[3-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]amino]ethyl]carbamate] (9CI) (CA INDEX NAME)

L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

NAME)

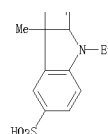
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B

-SO3-



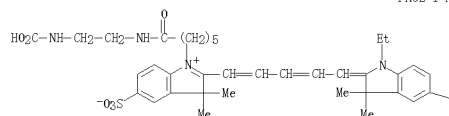
PAGE 2-A

L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 RN 288629-86-7 CAPLUS
 CN Adenosine 5'-(trihydrogen diphosphate), 2'-(or 3')-[2-[[6-[2-[5-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate] (9CI) (CA INDEX NAME)

CM 1

CRN 288629-84-5
 CMF C36 H46 N4 O9 S2

PAGE 1-A



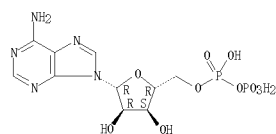
PAGE 1-B

~SO₃H

CM 2

CRN 58-64-0
 CMF C10 H15 N5 O10 P2

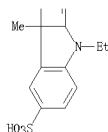
Absolute stereochemistry.



IT 192863-85-7P 288628-77-3P 288629-85-6P
 RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses) (comparative single-mol. and ensemble myosin enzymol. using

L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

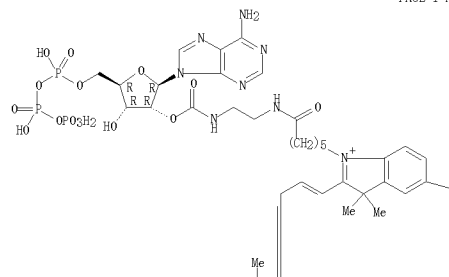
PAGE 2-A



RN 288628-77-3 CAPLUS
 CN Adenosine 5'-(tetrahydrogen triphosphate), 2'-[2-[[6-[2-[3-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A

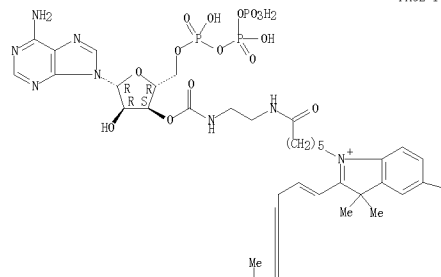


L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 sulfoindocyanine ATP and ADP derivs.)

RN 192863-85-7 CAPLUS
 CN Adenosine 5'-(tetrahydrogen triphosphate), 3'-[N-[2-[[6-[2-[3-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate], inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



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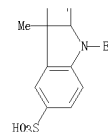
~SO₃⁻

L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

~SO₃⁻

PAGE 2-A

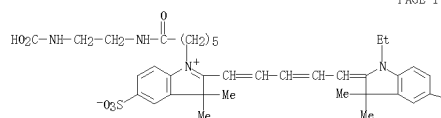


RN 288629-85-6 CAPLUS
 CN Adenosine 5'-(tetrahydrogen triphosphate), 2'-(or 3')-[2-[[6-[2-[5-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indolio]-1-oxohexyl]amino]ethyl]carbamate] (9CI) (CA INDEX NAME)

CM 1

CRN 288629-84-5
 CMF C36 H46 N4 O9 S2

PAGE 1-A



L6 ANSWER 77 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
PAGE 1-B

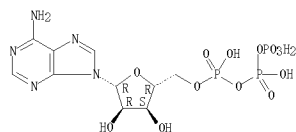
~SO₃H

CM 2

CRN 56-65-5

CMF C10 H16 N5 O13 P3

Absolute stereochemistry.

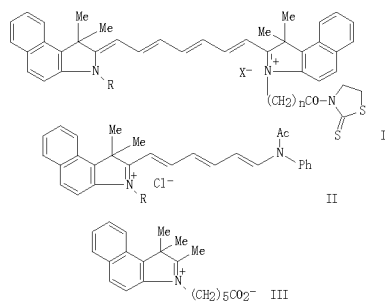


RE.CNT 79 THERE ARE 79 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 78 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:133675 CAPLUS
DN 132:180565
TI Preparation of 3-indocyanine green-acyl-1,3-thiazolidin-2-thione as
fluorescent labeling reagents
IN Nagaoka, Yoshimitsu; Ito, Susumu
PA Daiichi Pure Chemicals Co., Ltd., Japan
SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000009502	A1	20000224	WO 1999-JP4382	19990812 <--
W: AE, AL, AM, AT, AU, AZ, BA, BE, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ME, MR, NE, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 9951975	A1	20000306	AU 1999-51975	19990812 <--
EP 1104761	A1	20010606	EP 1999-937054	19990812 <--
EP 1104761	B1	20041013		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 279411	T	20041015	AT 1999-937054	19990812 <--
US 6403625	B1	20020611	US 2001-762305	20010503 <--
FRAI JP 1998-228241	A	19980812		
WO 1999-JP4382	W	19990812		
OS MARPAT 132:180565				
GI				

L6 ANSWER 78 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



AB Compds. represented by general formula (I) (wherein R is optionally substituted lower alkyl; n is an integer of 1 to 10; and X is an anion) are prepared. These compds. are useful as (1) fluorescent labeling reagents for amino acids, oligopeptides, proteins, lipids, and sugars, (2) active ingredients of diagnostics, or (3) as drugs for the treatment of cancer using laser. Thus, intermediate (II) and (III) (preparation given) were heated at 40° in pyridine for 30 min and then condensed with 1,3-thiazolidin-2-thione using 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride and 4-dimethylaminopyridine in CH₂Cl₂ at 0° for 1 h to give (R = Et, X = Cl, n = 5).

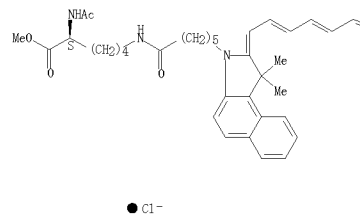
IT 220048-68-0F 220048-70-4P 259257-42-6P
RL: SYN (Synthetic preparation); PREP (Preparation)
(preparation of indocyanine green-acyl-1,3-thiazolidin-2-thione as fluorescent labeling reagents)

RN 220048-68-0 CAPLUS
CN 1H-Benz[e]indolium, 2-[7-[3-[6-[[[(5S)-5-(acetylamino)-6-methoxy-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrien-1-yl]-3-ethyl-1,1-dimethyl-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

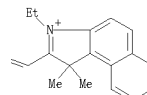
L6 ANSWER 78 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A

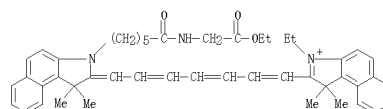


• Cl⁻

PAGE 1-B



RN 220048-70-4 CAPLUS
CN 1H-Benz[e]indolium, 2-[7-[3-[6-[[[(2-ethoxy-2-oxoethyl)amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrien-1-yl]-3-ethyl-1,1-dimethyl-, chloride (1:1) (CA INDEX NAME)



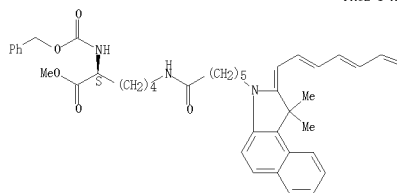
• Cl⁻

RN 259257-42-6 CAPLUS
CN 1H-Benz[e]indolium, 2-[7-[1,3-dihydro-3-[6-[[[(5S)-6-methoxy-6-oxo-5-[[[(phenylmethoxy)carbonyl]amino]hexyl]amino]-6-oxohexyl]-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrien-1-yl]-3-ethyl-1,1-dimethyl-, chloride (1:1) (CA INDEX NAME)

Absolute stereochemistry.

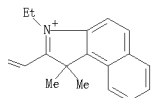
L6 ANSWER 78 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
Double bond geometry unknown.

PAGE 1-A



● Cl⁻

PAGE 1-B



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 79 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2000:107473 CAPLUS

DN 132:305418

TI Preparation of Thiol-Reactive Cy5 Derivatives from Commercial Cy5 Succinimidyl Ester

AU Gruber, Hermann F.; Kada, Gerald; Pragl, Bernt; Rieger, Christian; Hahn, Christoph D.; Harms, Gregory S.; Ahler, Werner; Dax, Thomas G.; Hohenthanner, Karin; Knaus, Hans-Guenther

CS Institute of Biophysics and Institute of Chemistry, J. Kepler University, Linz, A-4040, Austria

SO Bioconjugate Chemistry (2000), 11(2), 161-166

CODEN: BCCHES; ISSN: 1043-1802

PB American Chemical Society

DT Journal

LA English

OS CASREACT 132:305418

AB The present study offers reliable protocols for the preparation of new thiol-reactive Cy5 derivs. which are urgently needed for single mol. fluorescence microscopy. In a systematic approach, two alternate strategies were found for the extension of com. amine-reactive Cy5 with thiol-reactive end groups. In the two-step method, Cy5 succinimidyl ester was first reacted with ethylenediamine under conditions which gave .apprx.90% asyn. "Cy5-amine" and only .apprx.1% sym. product with two Cy5 residues. Subsequently, "Cy5-amine" was derivatized with com. heterobifunctional cross-linkers to introduce thiol-reactive end groups (maleimide or pyridyldithio). Alternatively, com. Cy5 succinimidyl ester was reacted with a primary amine (MTSEA, methanethiosulfonylamine, or PDEA, pyridyldithioethylamine) or a secondary amine (PEM, piperazinylethylmaleimide) to give the corresponding thiol-reactive derivs. in a single step. Results were good for MTSEA, moderate for PEM, and poor for PDEA. An addnl. drawback of the one-step method was the need for rigorous removal of unreacted Cy5 succinimidyl ester, which would label lysine residues on probe mols. It is concluded that, except for the Cy5-MTSEA conjugate, the two-step method is much more general, reliable, and easier to follow by the typical biophysicist, biologist, etc., for whose benefit, these procedures are being published. All thiol-reactive Cy5 derivs. showed similar absorption and fluorescence properties as Cy5 succinimidyl ester, and fluorescence was fully retained after binding to thiols on proteins. The kinetics of protein labeling was also examined in order to get an idea of proper labeling conditions.

IT

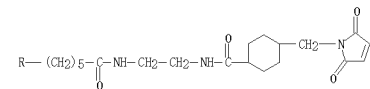
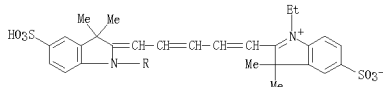
RL: ARU (Analytical role, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)

(Preparation of thiol-reactive Cy5 derivs. from com. Cy5 succinimidyl ester)

RN 265651-21-6F CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)methyl]cyclohexyl]carbonyl]amino]ethyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, sodium salt (1:1) (CA INDEX NAME)

L6 ANSWER 79 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● Na

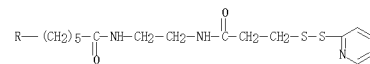
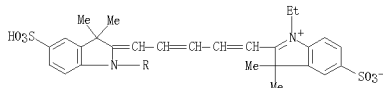
IT 265651-22-7F 265651-23-8P

RL: ARU (Analytical role, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)

(Preparation of thiol-reactive Cy5 derivs. from com. Cy5 succinimidyl ester)

RN 265651-22-7 CAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-oxo-6-[[2-[[1-oxo-3-(2-pyridinyldithio)propyl]amino]ethyl]amino]hexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, sodium salt (1:1) (CA INDEX NAME)



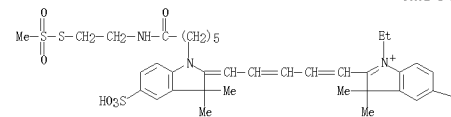
● Na

RN 265651-23-8 CAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-[[2-(methyldioxodithio)ethyl]amino]-6-oxohexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, sodium salt (1:1) (CA INDEX NAME)

L6 ANSWER 79 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



● Na

PAGE 1-B

SO3-

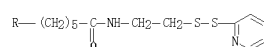
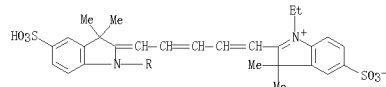
IT 265651-25-0P

RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)

(Preparation of thiol-reactive Cy5 derivs. from com. Cy5 succinimidyl ester)

RN 265651-25-0 CAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-oxo-6-[[2-(2-pyridinyldithio)ethyl]amino]hexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt, sodium salt (1:1) (CA INDEX NAME)



● Na

IT 265651-20-5P

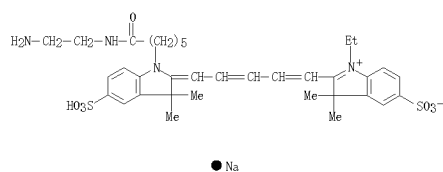
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(Preparation of thiol-reactive Cy5 derivs. from com. Cy5 succinimidyl ester)

RN 265651-20-5 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2-aminoethyl)amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-

L6 ANSWER 79 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
dimethyl-5-sulfo-, inner salt, sodium salt (1:1) (CA INDEX NAME)



RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

LG ANSWER 90 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2000:43460 CAPLUS
 DN 132:109363
 TI Colorants having rotaxane structure, labeling agents and method for their
 use
 IN Suzuki, Tomomi; Noda, Hitoshi; Okazaki, Shigetoshi
 PA Bunshi: Bio Photonics Kenkyusho K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 26 pp.
 CODEN: JKKXAF
 DT Patent
 LA Japanese
 FAN QT

PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000017183	A	20000118	JP 1999-116397	19990423 <--
	JP 3078793	B2	20000821		
	US 6242430	B1	20010605	US 1999-301635	19990429 <--
PRAI	JP 1998-121255	A	19980430		

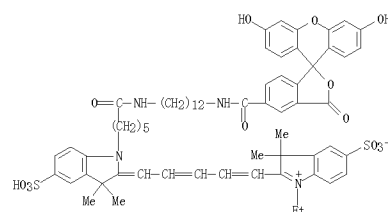
OS MARPAT 132:109563
AB The colorants with good water solubility, useful for biomol. labeling, consist of a cyclodextrin ring threaded by a linear mol. chain which can bear colorants of the same or different type on 2 ends, e.g. fluorescent pigments. Thus, mixing 100 μ l a saturated solution of α -cyclodextrin in DMSO with 3 mg 1,12-diaminododecane and 26 mg 5-carboxytetramethylrhodamine succinidyl ester dissolved in 50 μ l DMF at 40° for overnight gave a rotaxane compound

IT at 40° for overnight gave a rotaxane compound
255382-25-3P 255382-28-6P
RL: ARG (Analytical reagent use); IMF (Industrial manufacture); ANST
(Analytical study); PREP (Preparation); USES (Uses)
(colorants having rotaxane structure, labeling agents and method for
use)

255382-25-3 CAPLUS
 α-Cyclodextrin, rotaxane compd. with 2-[5-[1-[6-[[[2'-(3',6'-
 dihydroxy-3-oxospiro[isobenzofuran-1(3H),9-[9H]xanthen]-5-
 yl)carbonyl]amino]dodecyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-
 sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-
 indolium inner salt (1:1) (9CI) (CA INDEX NAME)

CN 1

CRN 255382-24-2
CME 066 H76 N4 013 S2

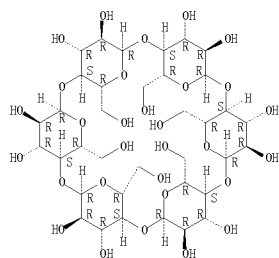


L6 ANSWER 80 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

CM 2

CRN 10016-20-3
CMF C36 H60 030

Absolute stereochemistry.

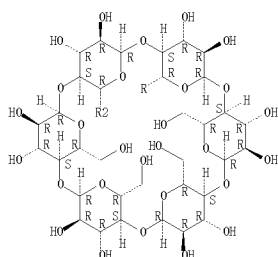


RN 255382-28-6 CAPLUS
 CN α -Cyclodextrin, 6A-[4-carboxy-1-oxobutyl]amino]-6A-deoxy-, rotaxane
 compd. with 2-[5-[1-[6-[[[12-[[[3,6'-dihydroxy-3-oxospiro[isobenzofuran-
 1(3H),9'-[9H]xanthen]-5-yl]carbonyl]amino]dodecyl]amino]-6-oxohexyl]-1,3-
 dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-
 3,3-dimethyl-5-sulfo-3H-indolium inner salt (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 255382-27-5
CMF C41 H67 N 032

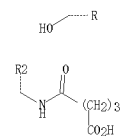
Absolute stereochemistry.



PAGE 1-A

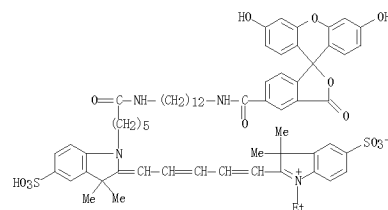
L6 ANSWER 80 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 2-A



CM 2

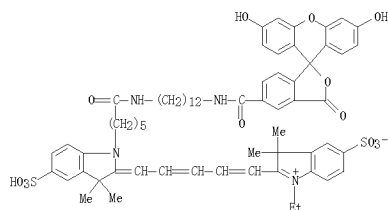
CRN 255382-24-2
CMF 066 H76 N4 013 S2



IT 255382-24-2P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; colorants having rotaxane structure, labeling agents and
method for use)

method for use)
 255382-24-2 CAPLUS
 CN 3H-Indolium, 2-[5-1-[6-[[12-[[3',6'-dihydroxy-3-oxospiro[isobenzofuran-
 1(3H),9'-[9H]xanthen)-5-yl]carbonyl]amino]dodecyl]amino]-6-oxohexyl]-1,3-
 dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-
 ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

L6 ANSWER 80 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



L6 ANSWER 81 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:561610 CAPLUS

DN 131:166214

TI Energy transfer dyes with enhanced fluorescence, reagents containing them, and their use in nucleic acid sequencing

IN Lee, Linda G.; Spurgeon, Sandra L.; Rosenblum, Barnett

PA Perkin-Elmer Corporation, USA

S0 U.S., 77 pp., Cont.-in-part of U.S. 5,863,727.

CODEN: USXXAM

DT Patent

LA English

FAN CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5945526	A	19990831	US 1998-46203	19980323 <--
US 5863727	A	19990126	US 1996-642330	19960503 <--
US 5847162	A	19981208	US 1996-672196	19960627 <--
JP 2003221515	A	20030808	JP 2002-280013	19970521 <--
US 6335440	B1	20020101	US 1999-272097	19990318 <--
US 20020086985	A1	20020704	US 2001-14743	20011029 <--
US 6849745	B2	20050201		
US 20060069912	A1	20060331	US 2004-788836	20040226
US 7169339	B2	20070130		
US 20050112781	A1	20050526	US 2004-788660	20040226
JP 2004305217	A	20041104	JP 2004-152623	20040521 <--
US 20070154924	A1	20070705	US 2006-617667	20061228
US 20070161026	A1	20070712	US 2006-617660	20061228
US 20070161027	A1	20070712	US 2006-617665	20061228
US 7388092	B2	20080617		
US 20070154925	A1	20070705	US 2006-618679	20061229
US 20070154926	A1	20070705	US 2006-618683	20061229
US 20070154927	A1	20070705	US 2006-618693	20061229
US 20070207477	A1	20070906	US 2006-618688	20061229
US 20070212709	A1	20070913	US 2006-618663	20061229
US 1996-642330	A2	19960603		
US 1996-672196	A2	19960627		
US 1996-726462	A1	19961004		
JP 1998-502974	A3	19970521		
JP 2002-280013	A3	19970521		
US 1996-46203	A1	19960623		
US 1999-272097	A1	19990318		
US 2000-578920	A1	20000525		
US 2001-14743	A1	20011029		
US 2004-788836	A1	20040226		

OS MARPAT 131:166214

AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers facilitate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye has the general structure R21ZOR2R3 (R1=C1-5 alkyl attached to the donor dye; Z=NH, S, O; R2=alkene, diene, alkyne, 5-6 membered ring having at least one unsat. bond or a fused ring structure which is attached to the carbonyl carbon; R3=functional group which attaches the linker to the acceptor dye). A preferred linker is CH2NHCOCH2CH2NHCO. Thus, 9-(2,4-dicarboxyphenyl)-5,6-bis(dimethylamino)xanthylum was esterified (4-CO2H) with N-hydroxysuccinimide (I), condensed with 4-H2NCH2CH24CO2H, re-esterified with I, and condensed with 4'-(aminomethyl)-5-carboxyfluorescein to give an energy transfer dye (II), esterification of which with I provided a site for coupling to a nucleoside. In DNA sequencing, an oligonucleotide labeled with II was brighter than one labeled with the direct amide of the

L6 ANSWER 81 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

resp. carboxyrhodamine and (aminomethyl)fluorescein not contg. a spacer bridge.

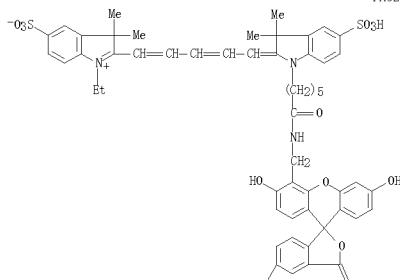
IT 212389-91-8P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(energy transfer dyes with enhanced fluorescence, reagents containing them, and their use in nucleic acid sequencing)

RN 212389-91-8 CAPLUS

CH-Indolium, 2-[5-[1-[6-[(5-carboxy-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-(9H)xanthen]-4'-yl)methyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



RE CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:511278 CAPLUS

DN 131:140472

TI Dideoxy dye-labeled terminators for DNA sequencing

IN Kumar, Shivi; Nampalli, Satyam; McArdle, Bernard F.; Fuller, Carl W.

PA Amersham Pharmacia Biotech, Inc., USA

S0 PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

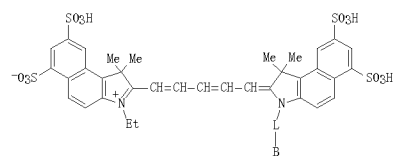
LA English

FAN CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9940223	A1	19990812	WO 1999-US2104	19990202 <--
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2319777	A1	19990812	CA 1999-2319777	19990202 <--
CA 2319777	C	20080108		
AU 9925717	A	19990823	AU 1999-25717	19990202 <--
EP 1060264	A1	20001220	EP 1999-905589	19990202 <--
EP 1060264	B1	20050706		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002505853	T	20020226	JP 2000-530633	19990202 <--
AT 299190	T	20050715	AT 1999-905589	19990202
US 6949635	B1	20050927	US 2000-699030	20001026
US 1998-18695	A	19980204		
WO 1999-US2104	W	19990202		

OS MARPAT 131:140472

GI

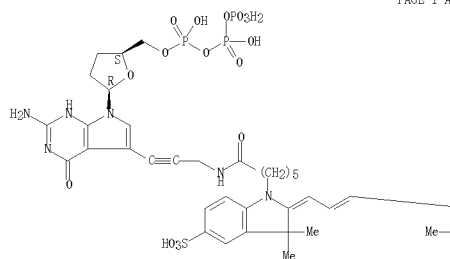


AB A kit is provided for DNA sequencing comprising a first, second, third and fourth dye-labeled terminator mols., each of the dye terminator mols. comprising a dye mol., a linker of at least 10 atoms in length and a dideoxynucleoside mono- or triphosphate, and a thermostable DNA polymerase. The dye terminators provide uniform band intensities and the resolution of dye-induced compression artifacts in DNA sequencing. The dideoxy dye-labeled terminators of the present invention are particularly well suited for use with DNA polymerases that are thermostable or which contain an altered dNMP binding site. Their use do not require the use of nucleotide analogs such as dTTP or d-thio nucleotides to eliminate dye-induced compression artifacts. There is a strong correlation between the length of the link between the dye mol. and the nucleotide and band uniformity, but little correlation between the type of dye (or other parameters) and band intensity. Dye terminators with linkers of 10 or more atoms up to 25 atoms when used in sequencing reactions produce bands in sequencing gels of significantly improved uniformity compared with dye terminators with linkers less than 10 atoms. In preferred embodiments, the dye terminators comprise structure I (B = 2',3'-dideoxy-7-deaza-ATP or

L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 -GTP or 2',3'-dideoxy-UTP or -CTP; L = linker attached to 7 position of
 purines or 5 position of pyrimidines; when B = deaza-ddATP or deaza-ddGTP,
 L = C.tplbond.CCH2NHC(O)(CH2)5; when B = ddUTP or ddCTP, L =
 C.tplbond.CCH2NHC(O)(CH2)5.
 IT 235743-43-8P 235743-44-9P 235743-45-0P
 235743-46-1P 235743-47-2P 235743-48-3P
 235743-49-4P 235743-50-7P 235743-51-8P
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST
 (Analytical study); PREP (Preparation); USES (Uses)
 RN (dideoxy dye-labeled terminators for DNA sequencing)
 CN 235743-43-8 CAPLUS
 3H-Indolium, 2-[5-[1-[6-[[3-[2-amino-4,7-dihydro-4-oxo-7-[(2R,5S)-
 tetrahydro-5-[[[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]ox
 ylmethyl]-2-furanyl]-3H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-
 6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-
 1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

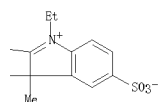
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

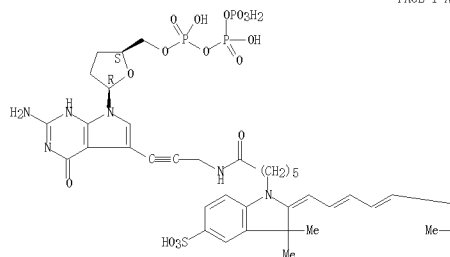
PAGE 1-B



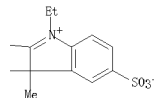
RN 235743-45-0 CAPLUS
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 tetrahydro-5-[[[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]ox
 ylmethyl]-2-furanyl]-3H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-
 6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-
 pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



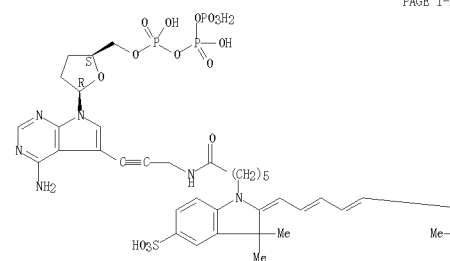
L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 PAGE 1-B



RN 235743-44-9 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[3-[4-amino-7-[(2R,5S)-tetrahydro-5-(3,5,7,7-
 tetrahydroxy-3,5,7-trioxido-2,4,6-trioxa-3,5,7-triphosphahexpt-1-yl)-2-
 furanyl]-7H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-6-oxohexyl]-
 1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-
 ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

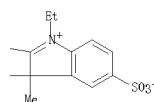
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

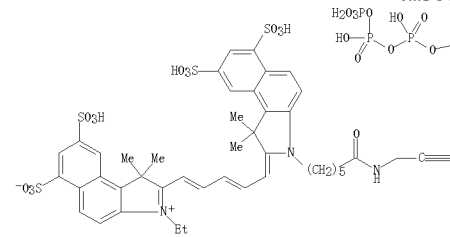
PAGE 1-B



RN 235743-46-1 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[3-[2-amino-4,7-dihydro-4-oxo-7-[(2R,5S)-
 tetrahydro-5-[[[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]ox
 ylmethyl]-2-furanyl]-3H-pyrrolo[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-
 6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-
 ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt
 (CA INDEX NAME)

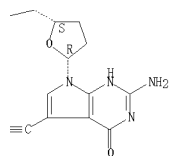
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

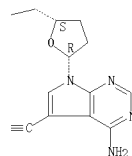


RN 235743-47-2 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[3-[4-amino-7-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxyl]phosphinyl]oxyl]methyl]-2-furanyl]-7H-pyrido[2,3-d]pyrimidin-5-yl]-2-propyn-1-yl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

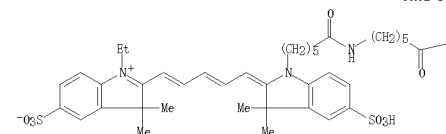
PAGE 1-B



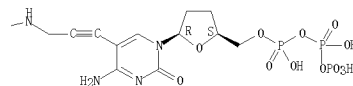
RN 235743-48-3 CAPLUS
 CN 3H-Indolium, 2-[5-[1-[6-[[6-[3-[4-amino-1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxyl]phosphinyl]oxyl]methyl]-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,8-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

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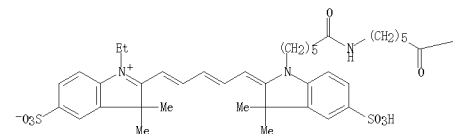


RN 235743-49-4 CAPLUS
 CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-1-[6-oxo-6-[[6-oxo-6-[[3-[1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-[[[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxyl]phosphinyl]oxyl]methyl]-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]hexyl]amino]hexyl]-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

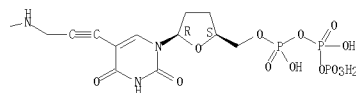
L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



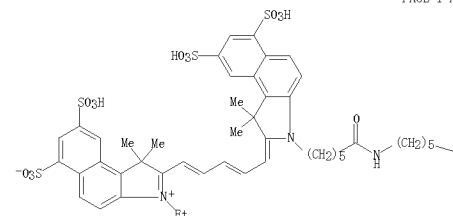
PAGE 1-B



RN 235743-50-7 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[1,3-dihydro-1,1-dimethyl-3-[6-oxo-6-[[6-oxo-6-[[3-[1,2,3,4-tetrahydro-2,4-dioxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxo-3,5,7-triphosphahapt-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt (CA INDEX NAME)

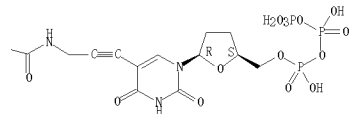
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

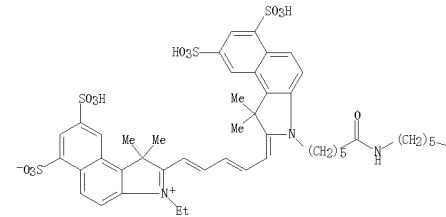
PAGE 1-B



RN 235743-51-8 CAPLUS
 CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[6-[3-[4-amino-1,2-dihydro-2-oxo-1-[(2R,5S)-tetrahydro-5-(3,5,7,7-tetrahydroxy-3,5,7-trioxido-2,4,6-trioxo-3,5,7-triphosphahapt-1-yl)-2-furanyl]-5-pyrimidinyl]-2-propyn-1-yl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-6,8-disulfo-2H-benz[e]indol-2-ylidene]-1,3-pentadien-1-yl]-3-ethyl-1,1-dimethyl-6,8-disulfo-, inner salt (CA INDEX NAME)

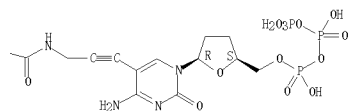
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 82 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 83 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:113697 CAPLUS

DN 130:139683

TI Preparation of nucleotide analogs as enzyme substrates in the chain-elongation of DNA

IN Simmonds, Adrian; Hamilton, Alan; Smith, Clifford; Loakes, David; Brown, Daniel; Hill, Fergal; Kumar, Shiv; Nampalli, Satyam; McDougall, Mark

PA Nycomed Amersham PLC, UK

S0 PCT Int. Appl., 60 pp.

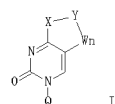
CODEN: PIXXD2

DI Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9906422	A2	19990211	WO 1998-GB2306	19980731 <--
WO 9906422	A3	19990603		
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GB, GM, KE, LS, MW, SD, SZ, US, ZW, AT, BE, CH, CI, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2297776	A1	19990211	CA 1998-2297776	19980731 <--
AU 9885528	A	19990222	AU 1998-85528	19980731 <--
EP 1006762	A2	20000631	EP 1998-93666	19980731 <--
EP 1006762	B1	20041013		
R:	AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE			
JP 2001512131	T	20010821	JP 2000-505178	19980731 <--
AT 279428	T	20041015	AT 1998-93666	19980731 <--
US 6444682	B1	20020903	US 2000-463501	20000418 <--
US 20060060431	A1	20060327	US 2002-233993	20020903 <--
US 6606611	E2	20030812		
PRAI GB 1997-16231	A	19970731		
WO 1998-GB2306	W	19980731		
US 2000-463501	A3	20000418		
OS MARPAT 130:139683				
GI				



AB Nucleoside analogs or base analogs I, where X = O or NH or S, Y = N or CHR or CR6, W = N or NR or CHR or CR or S, n = 1 or 2; each R is independently H or O or alkyl or alkenyl or alkoxy or aryl or a reporter moiety; where necessary (i.e. when Y and/or W is N or CR where R is not O) a double bond is present between Y and W or W and W, and Q is H or a sugar or a sugar analog or a nucleic acid backbone or backbone analog. Thus, 6-methyl-N-(6-amino)-caproamide-3'-[5'-triphospho-2'-deoxy-β-D-erythro-pentofuranosyl]pyrrolo[2,3-d]pyrimidin-2-one was prepared as substrate for terminal deoxynucleotidyl transferase.

L6 ANSWER 83 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

IT 220003-99-6P

KL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(preparation of nucleotide analogs as enzyme substrates in the chain elongation of DNA)

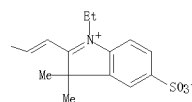
RN 220003-99-6 CAPLUS

CN SH-Indolium, 2-[5-[1-[6-[[[3-[2-deoxy-5'-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-2,3-dihydro-2-oxo-1H-pyrrolo[2,3-d]pyrimidin-6-yl]methyl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

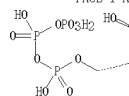
Absolute stereochemistry.
Double bond geometry unknown.

L6 ANSWER 83 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

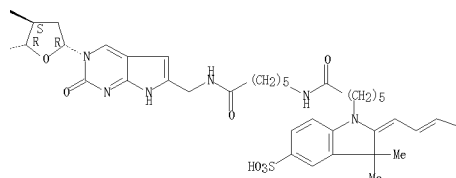
PAGE 1-C



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L6 ANSWER 84 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1999:96316 CAPLUS
 DN 130:140501
 TI Multiply charged cyanine dyes
 IN Cummins, William Jonathan; West, Richard Martin; Smith, John Anthony
 PA Nycomed Aersham Plc, UK
 SO PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9905221	A1	19990204	WO 1998-GB2232	19980727 <--
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2297216	A1	19990204	CA 1998-2297216	19980727 <--
CA 2297216	C	20080205		
AU 9886351	A	19990216	AU 1998-86351	19980727 <--
AU 740661	B2	20011108		
EP 1037947	A1	20000927	EP 1998-937620	19980727 <--
EP 1037947	B1	20030910		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001510873	T	20010807	JP 2000-504202	19980727 <--
AT 249500	T	20030915	AT 1998-937620	19980727 <--
US 6348599	B1	20020219	US 2000-463534	20000424 <--
EP 1997-306550	A	19970728		
WO 1998-GB2232	W	19980727		
OS MARPAT 130:140601				

AB A tri-, penta-, or heptamethine cyanine dye has ≥ 3 pos. charged N or P or S atoms, and also preferably has a reactive or functional group by which it may be linked to a biomol. or a solid surface. The dyes are suitable for forming conjugates with carbohydrates. Thus, Br(CH₂)₃Br was quaternized at one end with Et₃N and at the other end with 2,3,3-trimethylindolenine, and the product was condensed with 2-(2-anilinoethyl)-1-(5-carboxypentyl)-3,3-dimethylindolium bromide to give a carbocyanine with charge 2+, the CO₂H group of which was amidated with H₂N(CH₂)₃NMe₂(CH₂)₃NHCO₂Me₃ to increase the charge to 3+. The product had λ_{max} 548 nm (MeOH) and could be deprotected by use of CF₃CO₂H in MeOH-CH₂Cl₃.

IT 220143-80-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 RN 220143-80-6 CAPLUS
 CN 3H-Indolium, 1-[6-[[[3-[[[3-[[[1,1-dimethylethoxy]carbonyl]amino]propyl]dimethylammonio]propyl]dimethylammonio]propyl]amino]-6-oxohexyl]-2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1-propen-1-yl]-3,3-dimethyl-, bromide (1:3) (CA INDEX NAME)

L6 ANSWER 84 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

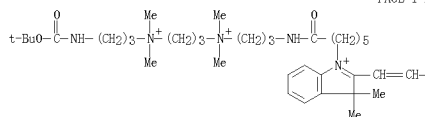
PAGE 1-B



RE CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

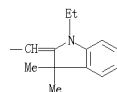
L6 ANSWER 84 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



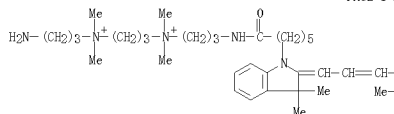
●3 Br⁻

PAGE 1-B



IT 220143-82-8P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (Preparation of multiply charged cyanine dyes)
 RN 220143-82-8 CAPLUS
 CN 2H-Indolium, 2-[3-[1-[6-[[[3-[[[3-[[3-aminopropyl]dimethylammonio]propyl]dimethylammonio]propyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-1,3,3-dimethyl-, bromide (1:3) (CA INDEX NAME)

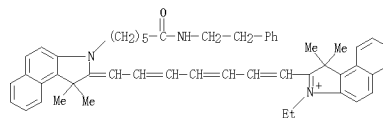
PAGE 1-A



●3 Br⁻

L6 ANSWER 85 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:1975 CAPLUS
 DN 130:140494
 TI Synthesis and reactivities of 3-indocyanine-green-acyl-1,3-thiazolidine-2-thione (ICG-ATT) as a new near-infrared fluorescent-labeling reagent
 AU Hirata, Terukage; Kogiso, Hiromi; Morimoto, Kenji; Miyamoto, Satoshi; Tawe, Hiromi; Sano, Shigeki; Muguruma, Naoki; Ito, Susumu; Nagao, Yoshimitsu
 CS Faculty of Pharmaceutical Sciences, The University of Tokushima, Tokushima, Japan
 SO Bioorganic & Medicinal Chemistry (1998), 6(11), 2179-2184
 CODEN: BMECEP; ISSN: 0968-0896
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB A new near-IR fluorescent-labeling reagent (ICG-ATT) bearing the 3-acyl-1,3-thiazolidine-2-thione (ATT) moiety with the chemoselective acylation feature and the dye moiety of indocyanine green (ICG) has been developed. Synthesis and reactivities of the ICG-ATT are described.
 IT 220048-67-9F 220048-68-OP 220048-70-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (Preparation and reactivity of indocyanine green-acylthiazolidine derivative near-IR fluorescent labeling dye)
 RN 220048-67-9 CAPLUS
 CN 1H-Benz[e]indolium, 2-[7-[1,3-dihydro-1,1-dimethyl-3-[6-oxo-6-[[2-phenylethyl]amino]hexyl]-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrien-1-yl]-3-ethyl-1,1-dimethyl-, chloride (1:1) (CA INDEX NAME)



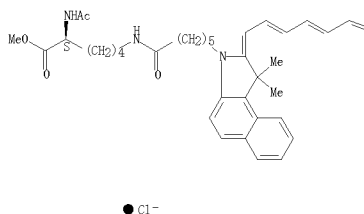
●Cl⁻

RN 220048-68-0 CAPLUS
 CN 1H-Benz[e]indolium, 2-[7-[3-[6-[[[5S)-5-(acetyl)amino]-6-methoxy-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrien-1-yl]-3-ethyl-1,1-dimethyl-, chloride (1:1) (CA INDEX NAME)

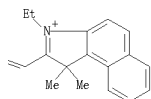
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 85 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

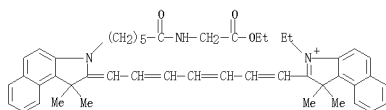
PAGE 1-A

● Cl⁻

PAGE 1-B



RN 220048-70-4 CAPLUS
CN 1H-Benz[e]indolium, 2-[7-[3-[6-[(2-ethoxy-2-oxoethyl)amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3,5-heptatrien-1-yl]-3-ethyl-1,1-dimethyl-, chloride (1:1) (CA INDEX NAME)

● Cl⁻

RE, CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 86 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:599559 CAPLUS
DN 129:212480
ORIEF 129:43050h, 43061a
TI Energy transfer dyes with enhanced fluorescence
IN Lee, Linda G.; Spurgeon, Sandra L.; Rosenblum, Barnett
PA The Perkin Elmer Corp., USA
SO U.S., 83 pp., Cont.-in-part of U. S. Ser. No. 642,330.
CODEN: USXXAM

DT Patent
LA English
FAN, CNT 6

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5800996	A	19980901	US 1996-726462	19961004 <--
US 5865727	A	19990126	US 1996-642330	19960503 <--
US 5847162	A	19981208	US 1996-672196	19960627 <--
CA 2203494	A1	19971103	CA 1997-2203494	19970423 <--
CA 2203494	C	20001226		
CA 2297589	A1	19971103	CA 1997-2297589	19970423 <--
EP 805190	A2	19971105	EP 1997-303039	19970502 <--
EP 805190	A3	19980107		
EP 805190	B1	19991215		
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AU 9719995	A	19971120	AU 1997-19995	19970502 <--
AU 691143	B2	19980607		
EP 940450	A1	19990908	EP 1999-201120	19970502 <--
EP 940450	B1	20060802		
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AT 187752	T	20000115	AT 1997-303039	19970502 <--
AT 335051	T	20000815	AT 1999-201120	19970502 <--
JP 1008124	A	19980407	JP 1997-115920	19970506 <--
JP 3090626	B2	20000925		
JP 2000154381	A	20000606	JP 2000-10931	19970506 <--
JP 2000187036	A	20000704	JP 2000-10932	19970506 <--
JP 200274999	A	20030930	JP 2003-28821	19970506 <--
JP 3492238	B2	20040223		
JP 2002221515	A	20030808	JP 2002-280013	19970521 <--
US 6335440	B1	20020101	US 1999-272097	19990318 <--
JP 2000154332	A	20000606	JP 2000-10933	20000119 <--
JP 3592173	B2	20041124		
US 20020086985	A1	20020704		
US 6849745	B2	20050201	US 2001-14743	20011029 <--
JP 2004043819	A	20040212	JP 2003-288285	20030806 <--
JP 2004068023	A	20040304	JP 2003-288286	20030806 <--
US 20050069912	A1	20050331	US 2004-788836	20040226
US 7169309	B2	20070130		
US 20060112781	A1	20050526	US 2004-788660	20040226
JP 2004250713	A	20040903	JP 2004-136932	20040430 <--
JP 2004305217	A	20041104	JP 2004-152623	20040521 <--
US 20070154924	A1	20070705	US 2006-617667	20061228
US 20070161026	A1	20070712	US 2006-617660	20061228
US 20070161027	A1	20070712	US 2006-617665	20061228
US 7358992	B2	20080617		
US 20070154925	A1	20070705	US 2006-618679	20061229
US 20070154926	A1	20070705	US 2006-618683	20061229
US 20070154927	A1	20070705	US 2006-618693	20061229
US 20070207477	A1	20070906	US 2006-618688	20061229
US 20070212709	A1	20070913	US 2006-618663	20061229
PRAI US 1996-642350	A2	19960603		
US 1996-672196	A2	19960627		
US 1996-726462	A	19961004		
CA 1997-2203494	A3	19970423		

L6 ANSWER 85 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

L6 ANSWER 86 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

EP 1997-303039 A3 19970502
JP 1997-115920 A3 19970506
JP 2000-10931 A3 19970506
JP 2000-10932 A3 19970506
JP 2003-288285 A3 19970506
JP 1998-502974 A3 19970521
JP 2002-280013 A3 19970521
US 1998-46208 A1 19980323
US 1999-272097 A1 19990318
US 2000-578920 A1 20000525
US 2001-14743 A1 20011029
US 2004-788836 A1 20040226
MARPAT 129:212480

OS
GI

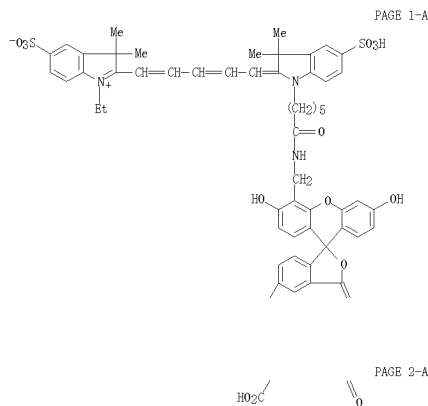
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Novel linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye are provided. These linkers facilitate the efficient transfer of energy between a donor and acceptor dye in an energy transfer dye. One of these linkers for linking a donor dye to an acceptor dye in an energy transfer fluorescent dye has the general structure R₂1Z1C(0)R₂2R₂8 where R₂1 is a C1-5 alkyl attached to the donor dye, C(0) is a carbonyl group, Z1 is either NH, S or O, R₂2 is a substituent which includes an alkene, diene, alkyne, a five and six membered ring having at least one unsatd. bond or a fused ring structure which is attached to the carbonyl carbon, and R₂8 includes a functional group which attaches the linker to the acceptor dye. One example dye prepared was 1.

IT 212389-91-8P
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(energy transfer dyes with enhanced fluorescence)

RN 212389-91-8 CAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[(5-carboxy-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]-4'-yl)methyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

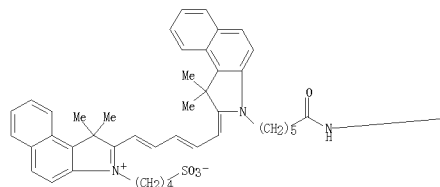
L6 ANSWER 86 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMATL6 ANSWER 87 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 1998:597396 CAPLUS

DN 130:1969
TI New NIR dyes: synthesis, spectral properties and applications in DNA analyses
AU Narayanan, Narasimachari; Little, Garrick; Raghavachari, Ramesh; Gibson, Jasmin; Lugade, Ananda; Prescott, Chuck; Reiman, Kevin; Roemer, Steve; Steffens, Dave; Sutter, Scott; Draney, Daniel
CS LI-COR, Inc., Biotech Division, Lincoln, NE, 68504, USA
S0 NATO ASI Series, Series 3: High Technology (1998),
52 (Near-Infrared Dyes for High Technology Applications), 141-158
CODEN: NAHTP4; ISSN: 1388-7168
PB Kluwer Academic Publishers
DT Journal
LA English
AB New pentamethine and heptamethine monofunctional asym. cyanine dyes have been synthesized. They are suitable for independently exciting at 680nm and 780nm laser diodes resp. The absorption and fluorescence characteristics such as molar absorptivity and quantum yield have been examined in various solvents. A new spectrofluorometer, an instrument built in house is described. The dyes having a terminal hydroxyl group (1, 3, 4, 5 and 8) have been successfully attached to oligonucleotides on an automated DNA synthesizer through phosphoramidite chemical. The dyes with carboxyl (2) and isothiocyanate functional groups (7) have been coupled directly to deoxyribonucleotides (dATP). The dye labeled primers and dye labeled dATPs provide excellent sensitivity and high throughput when used for sequencing and genotyping applications on LI-COR's 4200 automated DNA analyzer which independently detects at two wavelengths.
IT
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(synthesis, spectral properties of new NIR dyes and applications in DNA analyses)
RN 215789-35-8 CAPLUS
CN 1H-Benz[e]indolium, 2-[5-[3-[6-[[[9-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-OH-purin-6-yl]amino]hexyl]amino]-6-oxohexyl]-1,3-dihydro-1,1-dimethyl-2H-benz[e]indol-2-ylidene]-1,3-pentadienyl]-1,1-dimethyl-3-(4-sulfobutyl)-, inner salt, tetralithium salt (9CI) (CA INDEX NAME)

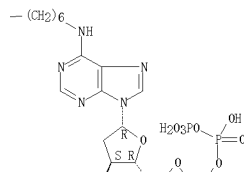
Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 87 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)

PAGE 1-B



PAGE 2-A

●4 Li



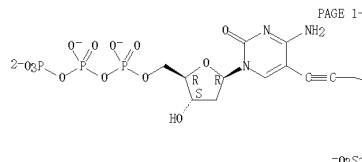
PAGE 2-B

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMATL6 ANSWER 88 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
AN 1998:312612 CAPLUS

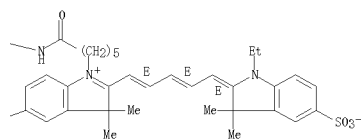
DN 129:78684
ORIEF 129:16193h,16193a
TI Time-resolved identification of individual mononucleotide molecules in aqueous solution with pulsed semiconductor lasers
AU Sauer, Markus; Arden-Jacob, Jutta; Drexhage, Karl H.; Gobel, Florian; Lieberwirth, Ulrike; Muehlegger, Klaus; Muller, Ralph; Wolfrum, Jurgen; Zander, Christoph
CS Physikalisches-Chemisches Institut, Universitat Heidelberg, Heidelberg, 69120, Germany
S0 Bioimaging (1998), 6(1), 14-24
CODEN: BOIMEL; ISSN: 0966-9061
PB Institute of Physics Publishing
DT Journal
LA English
AB We applied a short-pulse diode laser emitting at 640 nm with a repetition rate of 56 MHz in combination with a confocal microscope to study bursts of fluorescence photons from individual differently labeled mononucleotide mols. in water. Two newly synthesized dyes, an oxazine dye (MR121) and a rhodamine dye (JA53), and two com. available dyes, a carbocyanine dye (Cy5) and a boradiaz-indacene dye (Bodipy630/650), were used as fluorescent labels. The time-resolved fluorescence signals of individual mononucleotide mols. in water were analyzed and identified by a maximum likelihood estimator (MLE). Taking only those single mol. transits which contain more than 30 collected photoelectrons, the two labeled mononucleotide mols., Cy5-dCTP and Bodipy-dUTP, can be identified by time-resolved fluorescence spectroscopy with a probability of correct classification of greater than 99%. Our results show that at least three differently labeled mononucleotide mols. can be identified in a common aqueous solution. We obtain an overall classification probability of 90% for the time-resolved identification of Cy5-dCTP, MR121-dUTP and Bodipy-dUTP mols. via their characteristic fluorescence lifetimes of 1.06±0.33ns (Cy5-dCTP), 2.07±0.59ns (MR121-dUTP) and 3.88±1.71ns (Bodipy-dUTP).
IT 206271-55-8
RL: ANT (Analyte); ANST (Analytical study)
(time-resolved identification of individual mononucleotide mols. in aqueous solution with pulsed semiconductor lasers)
RN 206271-55-8 CAPLUS
CN Cytidine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-yl]-oxohexyl]amino]-1-propenyl]-, inner salt, ion(5-) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



L6 ANSWER 88 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
PAGE 1-B



RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

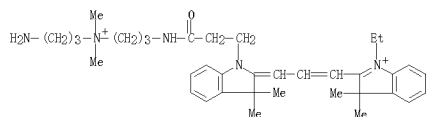
L6 ANSWER 89 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1998:239058 CAPLUS
DN 128:280585
OREF 128:55485a,55488a
TI Fluorescent labeling and electrophoresis of carbohydrates
IN Jackson, Peter; Cummins, William Jonathan; West, Richard; Smith, John
Anthony; Briggs, Mark Samuel Jonathan
PA Amersham International PLC, UK; Jackson, Peter; Cummins, William Jonathan;
West, Richard; Smith, John Anthony; Briggs, Mark Samuel Jonathan
SO PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9815829	A1	19980416	WO 1997-GB2727	19971003 <--
W: AU, CA, HU, IL, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, MC, NL, PT, SE				
CA 2267337	A1	19980416	CA 1997-2267337	19971003 <--
AU 9745656	A	19980505	AU 1997-45656	19971003 <--
EP 938675	A1	19990901	EP 1997-944011	19971003 <--
EP 938675	B1	20030607		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 2001501735	T	20010206	JP 1998-517295	19971003 <--
JP 3852483	B2	20061129		
US 6294667	B1	20010925	US 1999-284046	19990610 <--
PRAI GB 1996-20851	A	19961007		
EP 1997-306350	A	19970728		
WO 1997-GB2727	W	19971003		

AB The subject of the invention is the labeling and separation of fluorescently labeled carbohydrate substances, by virtue of their different charge-to-mass ratios or other factors, so as to enable a much larger number of different fluorescently labeled carbohydrate substances to be separated from each other electrophoretically than has been possible previously and thereby to facilitate their structural determination and their identification. Preferably the method for separating or distinguishing carbohydrate substances comprises labeling carbohydrate substances with a fluorescent labeling reagent comprising a naphthalene ring structure or other suitable fluorescent structure, having as a substituent a reactive group capable of reacting with a reducing sugar to bind thereto, also having at least one substituent, that may also be the reactive group, capable of carrying at least one pos. charge which may exist on the fluorescently labeled carbohydrate substances and does not extinguish the fluorescence of the labeling reagent. The anal. is continued by applying the labeled substances to an electrophoretic gel, or other matrix used to support electrophoretic seps., and running the electrophoresis to cause differential migration of different substances. Preferably the fluorescent labeling reagent is a cyanine dye.

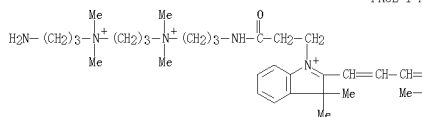
IT 205814-84-2F 205814-98-8P 205815-02-7P
205815-06-1P
RL: AR6 (Analytical reagent use); ARU (Analytical role, unclassified); BUU (Biological use, unclassified); SWP (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(Fluorescent labeling and electrophoresis of carbohydrates)
RN 205814-84-2 CAPLUS
CN 3H-Indolium, 2-[3-[1-[3-[3-[3-[3-aminopropyl]dimethylammonio]propyl]dimethylammonio]propyl]amino]-3-oxopropyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl- (CA INDEX NAME)

L6 ANSWER 89 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



RN 205814-98-8 CAPLUS
CN 3H-Indolium, 1-[3-[1-[3-[3-[3-[3-aminopropyl]dimethylammonio]propyl]dimethylammonio]propyl]amino]-3-oxopropyl]-2-[3-[1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-3,3-dimethyl- (CA INDEX NAME)

PAGE 1-A

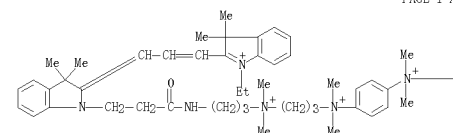


PAGE 1-B



RN 205815-02-7 CAPLUS
CN 3H-Indolium, 2-[3-[1-[3-[3-[3-[3-aminopropyl]dimethylammonio]phenyl]dimethylammonio]propyl]dimethylammonio]propyl]amino]-3-oxopropyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl- (CA INDEX NAME)

PAGE 1-A



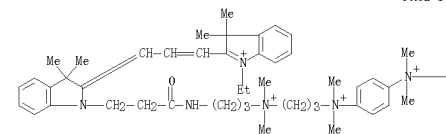
L6 ANSWER 89 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

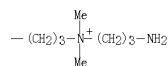
— (CH2)3-NH2

RN 205815-06-1 CAPLUS
CN 3H-Indolium, 2-[3-[1-[3-[3-[3-[3-aminopropyl]dimethylammonio]propyl]dimethylammonio]phenyl]dimethylammonio]propyl]dimethylammonio]propyl]amino]-3-oxopropyl]-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl- (CA INDEX NAME)

PAGE 1-A



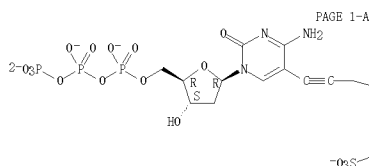
PAGE 1-B



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

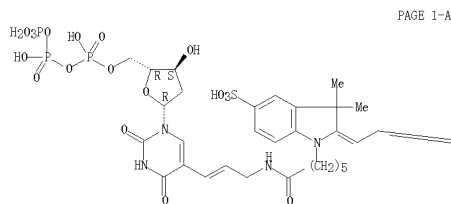
L6 ANSWER 90 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1998:220741 CAPLUS
 DN 128:303476
 OREF 128:59969a,59972a
 TI Single-molecule counting and identification in a microcapillary
 AU Zander, C.; Drexhage, K. H.; Han, K.-T.; Wolfrum, J.; Sauer, M.
 CS Im Neuenheimer Feld 2E3, Physikalisch-Chemisches Institut, Universitat
 Heidelberg, Heidelberg, D-69120, Germany
 SO Chemical Physics Letters (1998), 286(5,6), 457-465
 CODEN: CHPLBC; ISSN: 0009-2614
 PB Elsevier Science B.V.
 DT Journal
 LA English
 AB Using a confocal microscope the authors studied photon bursts from individual mols. (dye-labeled mononucleotides) flowing in a cone-shaped microcapillary with an inner diameter of 0.5 μm at the small end of the cone. The flow of the conjugates was established by electrokinetic forces. Excitation of the fluorophore was provided by a pulsed diode laser (λ = 640 nm, average power 800 μW, repetition rate 56 MHz). The characteristic diffusion and flow time through the laser focus and burst size statistics were determined in the microcapillary as well as in an open volume. Applying time-correlated single-photon counting, two different conjugate species (Cy5-dCTP, JAS3-dUTP) can be distinguished due to their characteristic fluorescence decay time with a probability of correct classification of 80%.
 IT 206271-55-8, Cy 5dCTP tetraanion
 RL: ANT (Analyte); ANST (Analytical study)
 (Cy 5dCTP, single-mol. counting and identification in microcapillary)
 RN 206271-55-8 CAPLUS
 CN Cytidine 5'-(tetrahydrogen triphosphate), 2'-deoxy-5-[3-[[6-[2-[(1E,3E,5E)-5-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-3H-indol-1-oxohexyl]amino]-1-propynyl]-, inner salt, ion(5-) (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry as shown.

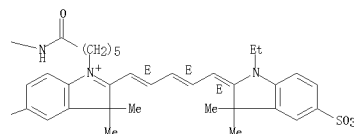


L6 ANSWER 91 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1997:472614 CAPLUS
 DN 127:145698
 OREF 127:28025a,28028a
 TI Molecular mechanism controlling the incorporation of fluorescent nucleotides into DNA by PCR
 AU Zhu, Zhengrong; Waggoner, Alan S.
 CS Center for Light Microscope Imaging and Biotechnology, Carnegie Mellon University, Pittsburgh, PA, USA
 SO Cytometry (1997), 28(3), 206-211
 CODEN: CYTODQ; ISSN: 0196-4763
 PB Wiley-Liss
 DT Journal
 LA English
 AB The efficiency and yield of incorporation of fluorescent nucleotides into DNA by polymerase chain reaction (PCR) have been investigated with linear amplification (PCR with single-stranded template and single primer). In the present study, we prepared single-stranded templates with defined sequences and used dUTP attached to the fluorescent label with linkers of different lengths. Incorporation and yield of the modified dUTP were reduced when the sequence demanded that multiple dyes be inserted at adjacent sites. The interactions between the polymerase and cyanine-labeled sites on the extending strand probably terminated the chain extension. Thus, because labeling d. was increased, the yield of PCR was reduced. We also found that the interactions between the primer and dye-labeled sites on template disturb primer annealing and lead to a decrease in PCR yield.
 IT 159018-62-9 159018-64-1
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (mol. mechanism controlling the incorporation of fluorescent nucleotides into DNA by PCR)
 RN 159018-62-9 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[3-[1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
 Double bond geometry unknown.

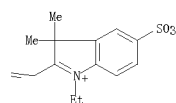


L6 ANSWER 90 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 PAGE 1-B



RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

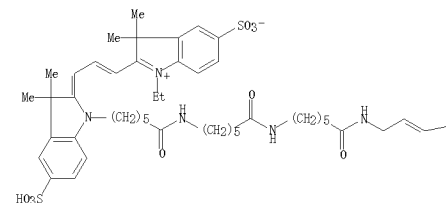
L6 ANSWER 91 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 PAGE 1-B



RN 159018-64-1 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[3-[1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

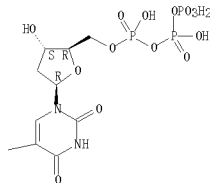
Absolute stereochemistry.
 Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 91 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-B

L6 ANSWER 92 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:390729 CAPLUS

DN 127:119183

OREF 127:22917a, 22920a

TI Single molecule imaging of fluorophores and enzymic reactions achieved by objective-type total internal reflection fluorescence microscopy
AU Tokunaga, Makio; Kitamura, Kazuo; Saito, Kiwamu; Iwane, Atsuko; Hikikoshi, Yanagida, ToshioCS Yanagida BioMotron Project, ERATO, JST, Osaka, 562, Japan
S0 Biochemical and Biophysical Research Communications (1997), 235(1), 47-53

CODEN: BBRCA9; ISSN: 0006-291X

FB Academic

DT Journal

LA English

AB

Imaging of single fluorescence mols. has been achieved in a relatively simple manner using objective-type total internal reflection fluorescence microscopy (TIRFM). Switching from epi-fluorescence microscopy to objective-type TIRFM was achieved by translation of a single mirror in the system. Clear images of single mols. of an orange fluorescent dye, Cy3, were obtained with a fluorescence-to-background ratio of 12, using a conventional high aperture objective (PlanApo, 100 \times , Na 1.4) with ordinary coverslips and immersion oil. This method allowed visualization of single mols. under scanning probe microscopes. Taking advantage of the technique of single mol. imaging, individual ATP turnovers have been visualized with a fluorescent ATP analog, Cy3-ATP, using a simple exptl. strategy. Clear on/off signals were obtained that correspond to the association and dissociation of single Cy3-ATP/ADP mols. with a single myosin head mol. This method will allow a variety of single-mol. assays of biomol. functions to be performed using fluorescently labeled substrates, ligands, messengers, and biol. active mols. Thus, the present technique provides a simple yet powerful and universal tool for researchers to probe the events of single mols.

IT 192863-85-7

RL: ARQ (Analytical reagent use); ANST (Analytical study); USES (Uses) (single mol. imaging of fluorophores and enzymic reactions by total internal reflection fluorescence microscopy)

RN 192863-85-7 CAPLUS

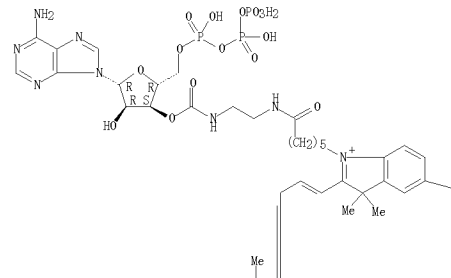
CN Adenosine 5'-(tetrahydrogen triphosphate), 3'-[N-[2-[[6-[2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-5,3-dimethyl-5-sulfo-3H-indol-1-yl]-6-oxohexyl]amino]ethyl]carbamate], inner salt (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

L6 ANSWER 92 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

PAGE 1-A



PAGE 1-B

L6 ANSWER 93 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:185614 CAPLUS

DN 126:288614

OREF 126:55745a, E6748a

TI Signal amplification in the detection of single-copy DNA and RNA by enzyme-catalyzed deposition (CARD) of the novel fluorescent reporter substrate Cy3.29-tyramide

AU Schmidt, Brigitte F.; Chao, Jean; Zhu, Zhengrong; DeBiasio, Robin L.; Fisher, Gregory

CS Center Light Microscope, Imaging & Biotechnology, Carnegie Mellon Univ., Pittsburgh, PA, USA

S0 Journal of Histochemistry and Cytochemistry (1997), 45(3), 365-373

CODEN: JHCYAS; ISSN: 0022-1554

FB Histochemical Society, Inc.

DT Journal

LA English

AB

The catalyzed reporter deposition (CARD) method, utilizing the novel fluorescent reporter Cy3.29-tyramide, is successful in fluorescent in situ hybridization (FISH) detection of RNA and single-copy DNA. Histone 4 expression is detected in RNA exts. of S-phase, synchronized HeLa cells by dot-blot anal. Gene expression of histone 4 in HeLa cells is demonstrated by FISH via CARD, utilizing oligonucleotide probes. Fluorescence intensity measurements on CARD-amplified histone 4 RNA detection showed (a) a 25-fold amplification of the signal brightness by biotinylated oligonucleotide probes and (b) a sixfold amplification of the signal brightness by horseradish peroxidase (HRP)-labeled histone 4 probes vs. the directly stained control. The sensitivity of the CARD method is demonstrated by the FISH detection of single-copy DNA on human corneal fibroblast and HeLa S3 interphase nuclei. Chromosomal localization of the single copy DNA is demonstrated on HeLa S3 metaphase chromosome spreads.

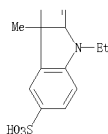
IT 174961-75-2

RL: ARQ (Analytical reagent use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

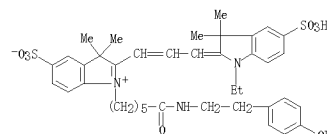
(signal amplification in detection of single-copy DNA and RNA by enzyme-catalyzed deposition (CARD) of novel fluorescent reporter substrate Cy3.29-tyramide)

RN 174961-75-2 CAPLUS

CN 3H-Indolium, 2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-1-[6-[[2-(4-hydroxyphenyl)ethyl]amino]-6-oxohexyl]-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

-SO₃⁻

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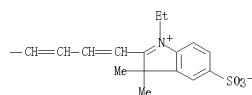


L6 ANSWER 94 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1997:148854 CAPLUS
 DN 126:154814
 OREF 126:29875a
 TI Detection of transmembrane potentials by optical methods
 IN Tsien, Roger Y.; Gonzalez, Jesus E.; III
 PA Regents of the University of California, USA; Tsien, Roger Y.; Gonzalez, Jesus, E. III
 SO PCT Int. Appl., 112 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN, CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9641166	A2	19961219	WO 1996-US9652	19960606 <--
WO 9641166	A3	19970615		
W: AL, AM, AT, AU, AZ, BE, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
US 5661035	A	19970826	US 1995-481977	19950607 <--
CA 2223927	A1	19961219	CA 1996-2223927	19960606 <--
CA 2223927	C	20040406		
CA 2458360	A1	19961219	CA 1996-2458360	19960606 <--
AU 9662643	A	19961230	AU 1996-62643	19960606 <--
AU 716139	B2	20000217		
EP 834074	A1	19980408	EP 1996-921410	19960606 <--
EP 834074	B1	19991105		
EP 834074	B2	20051116		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11508355	T	19990721	JP 1997-501926	19960606 <--
JP 4033899	B2	20080116		
AT 186400	T	19991115	AT 1996-921410	19960606 <--
EP 977035	A2	20000202	EP 1999-113781	19960606 <--
EP 977035	A3	20000301		
EP 977035	B1	20050914		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
ES 2140870	T3	20000301	ES 1996-921410	19960606 <--
AT 304706	T	20050915	AT 1999-113781	19960606 <--
EP 1610126	A1	20051228	EP 2005-15762	19960606 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6107066	A	20000822	US 1997-765860	19970508 <--
US 20020137201	A1	20020926	US 1999-378534	19990820 <--
US 6596522	B2	20050722		
AU 9965287	A	20000406	AU 1999-65287	19991216 <--
AU 760758	B2	20050522		
US 20020164577	A1	20021107		
US 7173150	B2	20070206	US 2001-967772	20010928 <--
US 20030129670	A1	20030710	US 2002-334589	20021231 <--
US 7115401	B2	20061003		
US 20030207248	A1	20031106	US 2002-335517	20021231 <--
US 7087416	B2	20060808		
US 20040002123	A1	20040101	US 2002-334288	20021231 <--
US 7118899	B2	20061010		
JP 2004231666	A	20040819	JP 2004-131475	20040427 <--

L6 ANSWER 94 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)

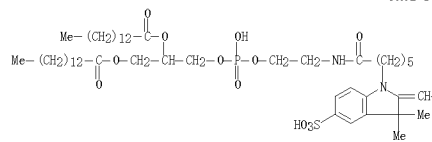
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L6 ANSWER 94 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 JP 4064945 B2 20080319
 US 20070026384 A1 20070201 US 2006-529838 20060929
 PRAI US 1996-481977 A 19960607
 CA 1996-2223927 A3 19960606
 EP 1996-921410 A3 19960606
 EP 1999-113781 A3 19960606
 JP 1997-501926 A3 19960606
 WO 1996-US9652 W 19960606
 US 1997-765860 A1 19970608
 US 1999-378534 A1 19990820
 US 1999-459966 A1 19991213
 US 2001-967772 A1 20010928
 US 2002-334589 A1 20021231
 MARPAT 126:154814

OS Methods and compns. are provided for determining the potential of a membrane.
 AB In one aspect, the method comprises: (1) introducing a first reagent comprising a hydrophobic fluorescent ion capable of redistributing from a first face of the membrane to a second face of the membrane in response to changes in the potential of the membrane, as described by the Nernst equation; (2) introducing a second reagent which labels the first face or the second face of the membrane, which second reagent comprises a chromophore capable of undergoing energy transfer by either donating excited state energy to the fluorescent ion or accepting excited state energy from the fluorescent ion; (3) exposing the membrane to radiation; (4) measuring energy transfer between the fluorescent ion and the second reagent; and (5) relating the energy transfer to the membrane potential. Energy transfer is typically measured by fluorescence resonance energy transfer. In some embodiments the first and second reagents are bound together by a suitable linker. In one aspect, the method is used to identify compds. which modulate membrane potentials in biol. membranes.
 IT 186776-37-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (transmembrane potential determination by fluorescence resonance energy transfer method)
 RN 186776-37-4 CAPLUS
 CN 3H-Indolium, 2-[5-[1,3-dihydro-1-[11-hydroxy-11-oxido-6,17-dioxo-14-[(1-oxotetradecyl)oxy]-10,12,16-trioxo-7-aza-11-phosphatriacenta-1-yl]-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9C1) (CA INDEX NAME)

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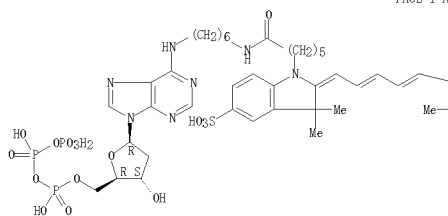
L6 ANSWER 95 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 1996:572057 CAPLUS
 DN 125:214232
 OREF 125:39885a, 39886a
 TI Stabilization of labeled nucleoside triphosphates with magnesium-binding compounds
 IN Duthie, R. Scott; Brush, Charles K.; Stirchak, Eugene P.; Freeman, Mark E.; Burazin, Lawrence J.
 PA Pharmacia Biotech Inc., USA
 SO PCT Int. Appl., 23 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN, CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9622298	A1	19960725	WO 1996-US274	19960105 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5808043	A	19980915	US 1995-374456	19960118 <--
CA 2210900	A1	19960725	CA 1996-2210900	19960105 <--
CA 2210900	C	20000606		
AU 9647497	A	19960807	AU 1996-47497	19960105 <--
EP 804446	A1	19971105	EP 1996-903394	19960105 <--
EP 804446	B1	20030709		
R: DE, FR, GB, SE				
JP 10504974	T	19980519	JP 1996-522303	19960105 <--
JP 3093275	B2	20001003		
PRAI US 1996-374456	A	19960118		
WO 1996-US274	W	19960105		
AB A preparation of a labeled nucleotide comprising at least one compound having a Mg2+ association constant between 1 + 10-11 to 1 + 10-2, inclusive, is claimed. The compound is preferably selected from the group consisting of citrate, isocitrate, phosphate, EGTA, EDTA, and EDTA. The concentration of the compound is preferably at least 5 mM.				
IT 174817-56-2				
RL: MSC (Miscellaneous) (stabilization of labeled nucleoside triphosphates with magnesium-binding compds.)				
RN 174817-56-2 CAPLUS				
CN 3H-Indolium, 2-[5-[1-[6-[16-[19-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoox y)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-9H-purin-6-yl]amino]hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9C1) (CA INDEX NAME)				

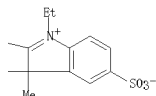
Absolute stereochemistry.
 Double bond geometry unknown.

L6 ANSWER 96 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)

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L6 ANSWER 96 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN

AN 1996:126968 CAPLUS

DN 124:224660

OREF 124:41453a,41456a

TI Characterization of fluorescent nucleoside triphosphates by capillary electrophoresis with laser-induced fluorescence detection: action of alkaline phosphatase and DNA polymerase

AU Evangelista, Ramon A.; Liu, Ming-Sun; Rampal, Sushma; Chen, Fu-Tai A.
CS Advanced Technology Center, Beckman Instruments Inc., Fullerton, CA, 92634, USA

SO Analytical Biochemistry (1996), 235(1), 89-97

CODEN: ANBCA2; ISSN: 0003-2697

FB Academic

DT Journal

LA English

AB

A method of anal. of fluor-labeled nucleoside triphosphates based on alkaline phosphatase-catalyzed sequential cleavage of phosphate groups with monitoring of all fluorescent species by capillary electrophoresis with laser-induced fluorescence detection is presented. The method allows determination of the purity of the triphosphate samples as well as the relative ams. of the lower phosphate contaminants. The ability of one of the fluor-labeled nucleoside triphosphates to serve as polymerase substrate was verified by labeling DNA restriction fragments by the method of filling recessed 3'-ends using DNA polymerase Klenow fragment.

IT 174817-57-3

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(fluorescent nucleoside triphosphates anal. by capillary electrophoresis with laser-induced fluorescence and action of enzymes)

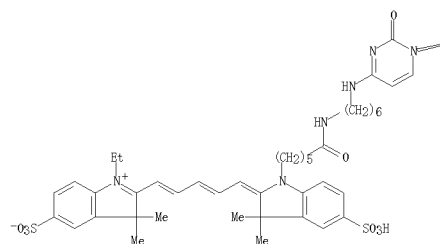
RN 174817-57-3 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]amino]hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

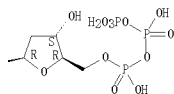
Double bond geometry unknown.

PAGE 1-A



L6 ANSWER 96 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)

PAGE 1-B



IT 174817-55-1P 174817-56-2P

RL: BPR (Biological process); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(fluorescent nucleoside triphosphates anal. by capillary electrophoresis with laser-induced fluorescence and action of enzymes)

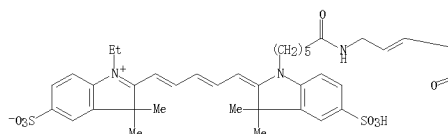
RN 174817-55-1 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[3-[1-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (CA INDEX NAME)

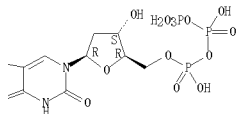
Absolute stereochemistry.

Double bond geometry unknown.

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PAGE 1-B



RN 174817-56-2 CAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[[[9-[2-deoxy-5-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-9H-purin-6-yl]amino]hexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-

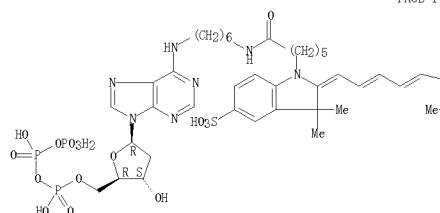
L6 ANSWER 96 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)

indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

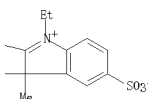
Absolute stereochemistry.

Double bond geometry unknown.

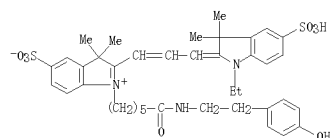
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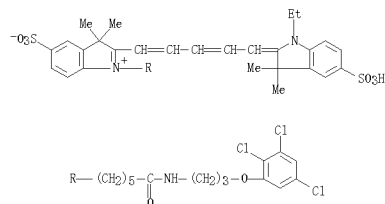
PAGE 1-B



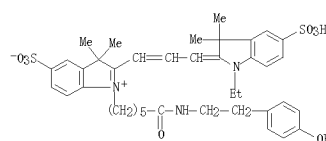
L6 ANSWER 97 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
 AN 1996:118140 CAPLUS
 DN 124:255089
 OREF 124:47149a,47152a
 TI Immunofluorescence signal amplification by the enzyme-catalyzed deposition of a fluorescent reporter substrate (CARD)
 AU Chao, Jean; DeBiasio, Robbin; Zhu, Zhengrong; Giuliano, Kenneth A.; Schmidt, Brigitte F.
 CS Center for Light Microscope Imaging and Biotechnology, Carnegie Mellon University, Pittsburgh, PA, 15213, USA
 SO Cytometry (1996), 25(1), 48-53
 CODEN: CYTOOQ; ISSN: 0196-4763
 PB Wiley-Liss
 DT Journal
 LA English
 AB Progress has been made in improving the immunohistochem. detection of antigens for imaging and flow cytometry. We report the synthesis of a novel fluorescent horseradish peroxidase substrate, Cy3.29-tyramide, and its application in an enzyme based signal amplification system, catalyzed reporter deposition (CARD). The catalyzed deposition of Cy3.29-tyramide was used to detect cell surface markers such as CD8 and CD25 on tonsil tissue and human lymphocytes. We compared the fluorescence CARD method to standard indirect immunofluorescence detection methods and found that an amplification of up to 15-fold was possible with CARD. The detection of the intracellular protein myosin II in fibroblastic cells and rabbit serum proteins blotted onto nitrocellulose was also improved. Thus, fluorescent CARD is a simple modification that can be made to standard immunofluorescence staining protocols to enhance significantly the detection of antigens.
 IT 174961-75-2P
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (immunofluorescence signal amplification by the enzyme-catalyzed deposition of a fluorescent reporter substrate (CARD))
 RN 174961-75-2 CAPLUS
 CN 3H-Indolium, 2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-1-[6-[[2-(4-hydroxyphenyl)ethyl]amino]-6-oxohexyl]-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IT 174961-76-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (immunofluorescence signal amplification by the enzyme-catalyzed deposition of a fluorescent reporter substrate (CARD))
 RN 174961-76-3 CAPLUS
 CN 3H-Indolium, 2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1-propenyl]-1-[6-[[2-(4-hydroxyphenyl)ethyl]amino]-6-oxohexyl]-3,3-dimethyl-5-sulfo-, inner salt, monopotassium salt (9CI) (CA INDEX NAME)
 L6 ANSWER 98 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
 AN 1995:905940 CAPLUS
 DN 123:308254
 OREF 123:35071a,35074a
 TI Synthesis of a Fluorescent Analog of Polychlorinated Biphenyls for Use in a Continuous Flow Immunosensor Assay
 AU Charles, Paul T.; Conrad, David W.; Jacobs, Megan S.; Bart, John C.; Kusterbeck, Anne W.
 CS Center for Bio/Molecular Science and Engineering, Naval Research Laboratory, Washington, DC, 20375-5348, USA
 SO Bioconjugate Chemistry (1995), 6(6), 691-4
 CODEN: BCCHEB; ISSN: 1043-1802
 PB American Chemical Society
 DT Journal
 LA English
 AB A synthetic scheme has been developed for the preparation of a dye-labeled analog of polychlorinated biphenyls. The reaction of 2,3,5-trichlorophenol with 3-bromopropylamine hydrobromide under basic conditions was used to introduce a free primary amine group into the parent compound by formation of a stable ether linkage. Reaction of this amine with the succinimidyl ester of a sulfoindocyanine dye resulted in amide bond formation to produce a fluorescently-labeled product. The dye conjugate was used to charge a column containing immobilized antibodies against polychlorinated biphenyls. Upon application of samples containing various concns. of polychlorinated biphenyls, the fluorescent analog was displaced from the column in amts. proportional to the concentration of analyte. Concns. of polychlorinated biphenyl as low as 1 ppm were measurable using this system.
 IT 168701-40-4P
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (Preparation and sulfoindocyanine dye reaction)
 RN 168701-40-4 CAPLUS
 CN 3H-Indolium, 2-[5-[1-ethyl-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene)-1,3-pentadienyl]-3,3-dimethyl-1-[6-oxo-6-[[3-(2,3,5-trichlorophenoxy)propyl]amino]hexyl]-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

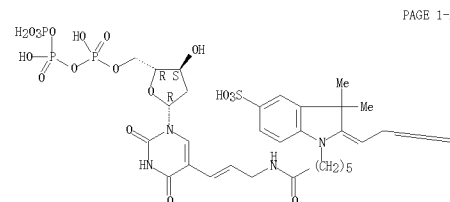


L6 ANSWER 97 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN (Continued)



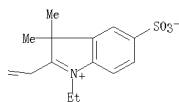
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L6 ANSWER 99 OF 100 CAPLUS COPYRIGHT 2008 ACS ON STN
 AN 1994:673166 CAPLUS
 DN 121:273166
 OREF 121:49671a,49674a
 TI Directly labeled DNA probes using fluorescent nucleotides with different length linkers
 AU Zhu, Zhengrong; Chao, Jean; Yu, Hong; Waggoner, Alan S.
 CS Cent. Light Microscope Imaging Biotechnol., Carnegie Mellon Univ., Pittsburgh, PA, 15213, USA
 SO Nucleic Acids Research (1994), 22(16), 3418-22
 CODEN: NARHAD; ISSN: 0305-1048
 DT Journal
 LA English
 AB Directly labeled fluorescent DNA probes have been made by nick translation and PCR using dUTP attached to the fluorescent label. Cy3, with different length linkers. With preparation of probes by PCR the authors find that linker length affects the efficiency of incorporation of Cy3-dUTP, the yield of labeled probe, and the signal intensity of labeled probes hybridized to chromosome target sequences. For nick translation and PCR, both the level of incorporation and the hybridization fluorescence signal increased in parallel when the length of the linker arm is increased. Under optimal conditions, PCR yielded more densely labeled probes, however, the yield of PCR labeled probe decreased with greater linear d. of labeling. By using a Cy3-modified dUTP with the longest linker under optimal conditions it was possible to label up to 28% of the possible substitution sites on the target DNA with reasonable yield by PCR and 18% by nick translation. A mechanism involving steric interactions between the polymerase, cyanine-labeled sites on template and extending chains and the modified dUTP substrate is proposed to explain the inverse correlation between the labeling efficiency and the yield of DNA probe synthesis by PCR.
 IT 159018-62-9 159018-63-0 159018-64-1
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (Directly labeled DNA probes using fluorescent nucleotides with different length linkers)
 RN 159018-62-9 CAPLUS
 CN 3H-Indolium, 2-[3-[1-[6-[[3-[1-[2-deoxy-5'-O-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-P-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)
 Absolute stereochemistry.
 Double bond geometry unknown.



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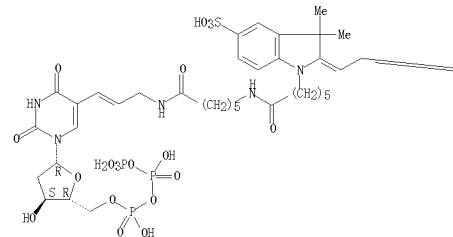
L6 ANSWER 99 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
PAGE 1-B



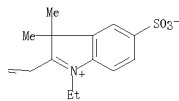
RN 159018-63-0 CAPLUS
CN 3H-Indolium, 2-[3-[1-[6-[3-[1-[2-deoxy-5-0-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

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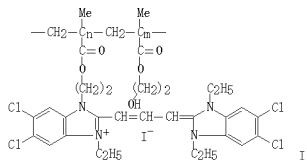


RN 159018-64-1 CAPLUS

L6 ANSWER 100 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1991:25819 CAPLUS
DN 114:25819
OREF 114:4583a,4586a
TI Dye polymer/sol-gel composites
IN Roberts, Michael R.; Coltrain, Bradley K.; Melpolder, Sharon M.
PA Eastman Kodak Co., USA
SO U.S., 16 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 4948843	A	19900814	US 1989-358056	19890530 <--
US 5100970	A	19920331	US 1990-623490	19901204 <--
FRAI US 1989-358056	A3	19890530		
US 1990-504505	B2	19900404		

GI



AB Dye-containing polymers are prepared and incorporated into glasses through a linking group by a sol-gel technique to give products useful for the application of imaging, optical, and solar heat energy. Thus, stirring 1.5 g 3-chloropropyltrimethoxysilane with 1.5 g I (m:n = 1:1) in 8 mL MeOH under Ar for 12 h, adding 0.01 mol Si(OMe)4 and 0.72 mL 0.15 M HCl and stirring for 4 h, coating this solution on silicone or glass wafers and heating at 200° for 90 s gave a 2000 Å-thick hard, blue dye-coated film.

IT 131328-90-0F
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of)

RN 131328-90-0 CAPLUS
CN 3H-Indolium, 2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-1-[6-[3-[1-(2-methyl-1-oxo-2-propenyl)amino]propyl]amino]-6-oxohexyl]-, bromide, polymer with N-[3-(dimethylamino)propyl]-2-methyl-2-propenamide and 2-[3-(1-ethyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene)-1-propenyl]-3,3-dimethyl-1-[6-[3-(2-methyl-1-oxo-2-propenyl)amino]propyl]amino]-6-oxohexyl]-3H-indolium iodide (9CI) (CA INDEX NAME)

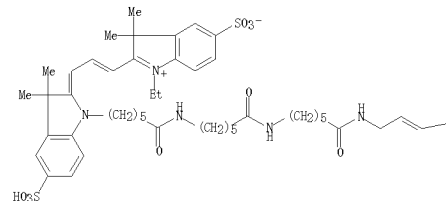
CM 1

CRN 131328-89-7
CMF C38 H51 N4 O2 . Br

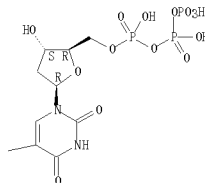
L6 ANSWER 99 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
CN 3H-Indolium, 2-[3-[1-[6-[3-[1-[2-deoxy-5-0-[hydroxy[[hydroxy(phosphonoxy)phosphinyl]oxy]phosphinyl]-β-D-erythro-pentofuranosyl]-1,2,3,4-tetrahydro-2,4-dioxo-5-pyrimidinyl]-2-propenyl]amino]-6-oxohexyl]amino]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

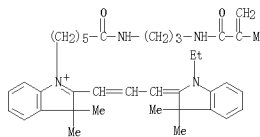
PAGE 1-A



PAGE 1-B



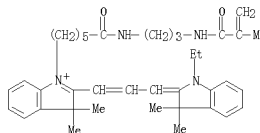
L6 ANSWER 100 OF 100 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)



● Br⁻

CM 2

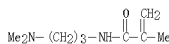
CRN 131328-88-6
CMF C38 H51 N4 O2 . I



● I⁻

CM 3

CRN 5205-93-6
CMF C9 H18 N2 O



=> => d que 113 stat

L7	34	SEA FILE=CAPLUS	ABB=ON	PLU=ON	"WILLIAMS KAREN"/AU
L8	15	SEA FILE=CAPLUS	ABB=ON	PLU=ON	("STONE TIM"/AU OR "STONE
					TIMOTHY"/AU OR "STONE TIMOTHY J"/AU)
L9	18	SEA FILE=CAPLUS	ABB=ON	PLU=ON	("SIMMONDS ADRIAN"/AU OR
					"SIMMONDS ADRIAN C"/AU OR "SIMMONDS ADRIAN CHRISTOPHER"/AU)
L10	5	SEA FILE=CAPLUS	ABB=ON	PLU=ON	("SWEET ALISON"/AU OR "SWEET
					ALISON CLAIRE"/AU)
L11	20	SEA FILE=CAPLUS	ABB=ON	PLU=ON	"FOWLER SUSAN"/AU OR "FOWLER
					SUSAN J"/AU OR "FOWLER SUSAN JANET"/AU
L12	84	SEA FILE=CAPLUS	ABB=ON	PLU=ON	L7 OR L8 OR L9 OR L10 OR L11
L13	10	SEA FILE=CAPLUS	ABB=ON	PLU=ON	L12 AND DYE

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L13 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:106903 CAPLUS
 DN 142:34835
 TI Differential analysis of cell surface proteins on closed membrane structures by labelling with dyes in the presence of an internal standard
 IN Copse, Catherine; Fowler, Susan Janet; Horsey, Imogen; Sweet, Alison Claire
 PA Amersham Biosciences UK Limited, UK
 SO PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

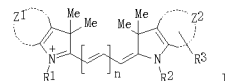
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004:106923	A1	20041209	WO 2003-GB2323	20030528
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2525685	A1	20041209	CA 2003-252685	20030528
AU 2003234038	A1	20030121	AU 2003-234038	20030528
AU 2003234038	B3	20080221		
EP 1627224	A1	20060222	EP 2003-727708	20030528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
CN 1859316	A	20060927	CN 2003-526856	20030528
JP 2006526137	T	20061116	JP 2006-500161	20030528
US 20070161116	A1	20070712	US 2006-557521	20060911
PRAI WO 2003-GB2323	W	20030528		
OS MARPAT 142:34835				

AB Disclosed are matched fluorescent reagents and a method for reproducibly labeling membrane components, such as those expressed on the cell surface, and subsequent differential anal. of the labeled components to detect differences between cell types and states. Furthermore, the present method utilizes an internal standard in order to match protein patterns across gels thereby avoiding gel-to-gel variation. The method according to the invention is particularly useful, for example, for detecting low abundance membrane proteins, for detecting changes in receptors expressed in the cell membrane, for example on ligand binding, or in response to stimuli.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:41759 CAPLUS
 DN 140:90327
 TI Cysteine-binding fluorescent cyanine dyes for saturation labelling of proteins and application in 2D-gel electrophoresis
 IN Williams, Karen; Stone, Timothy; Simmonds, Adrian Christopher; Sweet, Alison Claire; Fowler, Susan Janet
 PA Amersham Biosciences UK Limited, UK
 SO PCT Int. Appl., 58 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004:005923	A1	20040115	WO 2002-GB3142	20020708
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2491692	A1	20040115	CA 2002-2491692	20020708
AU 2002317958	A1	20040123	AU 2002-317958	20020708
AU 2002317958	B3	20070712		
EP 1520176	A1	20050406	EP 2002-747568	20020708
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1650161	A	20060803	CN 2002-529498	20020708
JP 2006532543	T	20061027	JP 2004-518895	20020708
US 20060233462	A1	20051020	US 2005-519433	20050623
PRAI WO 2002-GB3142	W	20020708		
OS MARPAT 140:90327				



AB A matched set of fluorescent dyes is provided, wherein each dye of the set is capable of covalent attachment to a protein and wherein each of the dyes has a mol. structure and a charge that is matched one with the other, such that relative electrophoretic mobility of a protein labeled with one dye of the set is the same as the electrophoretic mobility of the protein labeled with a different dye of the set. The matched set comprises at least two different fluorescent dyes of formula (I): wherein n is 1, 2, or 3; Z1 and Z2 independently represent the carbon atoms necessary to complete a Ph or naphthyl ring system; one of groups R1 and R2 is a target bonding group; remaining group R1 or R2 is selected from $-(CH_2)_4-W$ or $-(CH_2)_n-H$; group R3

L13 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
 is hydrogen, except when either R1 or R2 is $-(CH_2)_n-H$, in which case R3 is W, and W is selected from sulfonic acid and sulfonate. The invention also provides a method for satn. labeling of a protein with a fluorescent dye so as to label all available target amino acid, suitably cysteine, residues in the protein, thereby giving a single population of labeled protein mols.
 RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:619634 CAPLUS
 DN 139:226685
 TI Evaluation of saturation labeling two-dimensional difference gel electrophoresis fluorescent dyes
 AU Shaw, Joanne; Rowlinson, Rachel; Nickson, Janice; Stone, Tim; Sweet, Alison; Williams, Karen; Tonge, Robert
 CS Global Protein Science & Supply, Enabling Science and Technology (Biology), AstraZeneca, Macclesfield, UK
 SO Proteomics (2003), 3(7), 1181-1195
 CODEN: PROTC7; ISSN: 1615-9853
 PB Wiley-VCH Verlag GmbH & Co. KGaA
 DT Journal
 LA English
 AB Two-dimensional difference gel electrophoresis (2-D DIGE) enables an increased confidence in detection of protein differences. However, due to the nature of the minimal labeling where only approx. 5% of a given protein is labeled, spots cannot be directly excised for mass spectrometry (MS) anal. and detection sensitivity could be further enhanced. Amersham Biosciences have developed a second set of CyDye DIGE Cy3 and Cy5 dyes, which aim to overcome these limitations through saturation-labeling of cysteine residues. The dyes were evaluated in relation to their sensitivity and dynamic range, their useability as multiplexing reagents and the possibility of direct spot picking from saturation-labeled gels for MS anal. The saturation-labeling dyes were superior in sensitivity to their minimal-labeling counterparts, silver stain and Sypro Ruby, however, the resulting 2-D spot pattern was significantly altered from that of unlabeled or minimal-labeled protein. The dyes were found to be useful as multiplexing reagents although preferential labeling of proteins with one dye over another was observed but was controlled for through exptl. design. Protein identities were successfully obtained from material directly excised from saturation-labeled gels eliminating the need for post-stained preparative gels.
 RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:12143 CAPLUS
DN 139:32808

TI Fluorescence two-dimensional difference gel electrophoresis and mass spectrometry based proteomic analysis of *Escherichia coli*
AU Yan, Jun K.; Devenish, Angelica T.; Wait, Robin; Stone, Tim; Lewis, Steve; Fowler, Sue
CS Amersham Biosciences, Little Chalfont, UK
SO Proteomics (2002), 2(12), 1682-1698
CODEN: PROTC7; ISSN: 1615-9853
FE Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
AB Separation and relative quantitation of complex protein mixts. remain two of the most challenging aspects of proteomics. Here an advanced technique called fluorescence difference 2-D gel electrophoresis technol. (2D-DIGE) has been applied to a model system study of the *Escherichia coli* proteome after benzoic acid treatment. The mol. weight and charge matched cyanine dyes enable pre-electrophoretic labeling of control and treated samples which are then mixed and run in the same gel. Pooled control and treated samples labeled with Cy3 were used as an internal standard for both Cy5 labeled control and treated *E. coli* samples. Together with DeCyder imaging anal. software, more accurate quant. anal. than conventional two-dimensional PAGE was achieved. Using matrix-assisted laser desorption/ionization-time of flight and quadrupole-time of flight mass spectrometry a total of 179 differentially expressed protein spots were identified. These included enzymes, stress related and substrate (e.g. amino acids, maltose, ribose and TRP repressor) binding proteins. Of the spots analyzed, 77% contained only one protein species per spot, hence the change in protein expression measured was solely attributed to the identified protein. Many membrane proteins and protein isoforms were identified indicating both adequate solubilization of *E. coli* samples and potential post-translational modification. The results indicate that the regulatory mechanisms following benzoic acid treatment of *E. coli* are far more complicated than hitherto expected.
RE, CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN (Continued)
modifications and peptides. Proteins are prepnd., for example, from each of a different group of cell samples or body fluid samples to be compared. Each protein ext. is labeled with a different one of a luminescent dye from a matched set of dyes. The matched dyes have generally the same ionic and pH characteristics but emit light at different wavelengths to exhibit a different color upon luminescence detection. The labeled protein exts. are mixed together and sepnd. together by electrophoresis or a chromatog. method. The sepn. is obsd. to detect proteins unique to one sample or present in a greater ratio in one sample than in the other. Those unique or excess proteins will fluoresce the color of one of the dyes used. Proteins common to each sample migrate together and fluoresce the same.
RE, CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2002:570665 CAPLUS
DN 137:121946
TI Difference detection methods using matched multiple dyes
IN Minden, Jonathan; Waggoner, Alan; Fowler, Susan Janet
PA Carnegie Mellon University, USA
SO U.S., 27 pp., Cont.-in-part of U.S. 6,127,134.
CODEN: USXXAM
DT Patent
LA English
FAN, CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6426190	B1	20020730	US 1999-370743	19990809
US 6127134	A	20001003	US 1995-425480	19950420
CA 2218528	A1	19961024	CA 1996-2218528	19960419
CA 2218528	C	20030624		
EP 1494026	A1	20050105	EP 2004-23563	19960419
EP 1494026	B1	20050631		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
AT 303593	T	20050915	AT 2004-23563	19960419
ES 2240993	T3	20051016	ES 1996-912911	19960419
ES 2248781	T	20060316	ES 2004-23563	19960419
US 6045025	A	20000328	US 1997-949115	19971010
AU 9959500	A	20000203	AU 1999-59500	19991117
AU 740831	B2	20011115		
CA 2381506	A1	20010215	CA 2000-2381506	20000809
CA 2381506	C	20040727		
WO 2001011373	A2	20010215	WO 2000-US21766	20000809
WO 2001011373	A3	20010712		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
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EP 1200833	A1	20020502	EP 2000-952693	20000809
EP 1200833	B1	20041124		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003506718	T	20030218	JP 2001-515977	20000809
AU 778065	B2	20041111	AU 2000-65345	20000809
AT 283486	T	20041215	AT 2000-952693	20000809
ES 2233421	T3	20050616	ES 2000-952693	20000809
US 20020177122	A1	20021128	US 2002-137180	20020501
US 20040161780	A1	20040819	US 2003-713861	20031114
AU 2005200632	A1	20050310	AU 2005-200632	20050211
JP 2006023314	A	20060126	JP 2005-208506	20050719
JP 3890071	B2	20070307		
PRAI US 1996-425480	A2	19960420		
EP 1996-912911	A3	19960419		
JP 1996-531933	A3	19960419		
US 1999-370743	A	19990809		
WO 2000-US21766	W	20000809		
US 2002-137180	A3	20020501		
OS MARPAT 137:121946				
AB A process and a kit are provided for detecting differences in two or more samples of protein, including proteins bearing post-translational				

L13 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2001:115404 CAPLUS
DN 134:159870
TI Protein difference detection methods using matched multiple dyes
IN Minden, Jonathan; Waggoner, Alan; Fowler, Susan Janet
PA Carnegie Mellon University, USA; Amersham Pharmacia Biotech UK Limited
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN, CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001011373	A2	20010215	WO 2000-US21766	20000809
WO 2001011373	A3	20010712		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
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US 6426190	B1	20020730	US 1999-370743	19990809
CA 2381506	A1	20010215	CA 2000-2381506	20000809
CA 2381506	C	20040727		
EP 1200833	A1	20020502	EP 2000-952693	20000809
EP 1200833	B1	20041124		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003506718	T	20030218	JP 2001-515977	20000809
AU 778065	B2	20041111	AU 2000-65345	20000809
AT 283486	T	20041215	AT 2000-952693	20000809
AU 2005200632	A1	20050310	AU 2005-200632	20050211
US 1999-370743	A	19990809		
US 1996-425480	A2	19960420		
WO 2000-US21766	W	20000809		
OS MARPAT 134:159870				
AB A process and a kit are provided for detecting differences in two or more samples of protein, including proteins bearing post-translational modifications and peptides. Proteins are prepared, for example, from each of a different group of cell samples or body fluid samples to be compared. Each protein extract is labeled with a different one of a luminescent dye from a matched set of dyes. The matched dyes have generally the same ionic and pH characteristics but emit light at different wavelengths to exhibit a different color upon luminescence detection. The labeled protein exts. are mixed together and separated together by electrophoresis or a chromatog. method. The separation is observed to detect proteins unique to one sample or present in a greater ratio in one sample than in the other. Those unique or excess proteins will fluoresce the color of one of the dyes used. Proteins common to each sample migrate together and fluoresce the same.				

L13 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:735833 CAPLUS

DN 128:20124

OREF 128:3883a,3886a

TI Stabilizer- and dye-containing radiolabeled nucleotide or other organic compound formulations stored in an unfrozen state

IN Price, Roger Malcolm; May, Christopher Charles; Buckley, Elizabeth Margaret; Stone, Timothy

PA Amersham International Plc, UK

SO U.S., 14 pp., Cont.-in-part of U.S. 5,494,654.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5686058	A	19971111	US 1995-467802	19950606
US 5494654	A	19960227	US 1993-107733	19930823
US 5667763	A	19970916	US 1996-666834	19960619
US 5811072	A	19980922	US 1997-852050	19970506
US 5922301	A	19990713	US 1997-872059	19970610
US 6132698	A	20001017	US 1998-94476	19980610
PRAI EP 1992-303905	A	19920430		
US 1993-107733	A2	19930823		
WO 1993-GB869	W	19930427		
US 1995-467802	A3	19950606		
US 1996-666834	A3	19960619		
US 1997-872059	A3	19970610		

OS MARPAT 128:20124

AB Additives are proposed for compns. comprising radiolabeled organic compds. e.g. 32P-labeled nucleotides. Stabilizers are selected from tryptophan, p-aminobenzoate, indoleacetate and the azole group. Dyes are selected from Sulforhodamine B, Xylene Cyanol, Azocarmine B, and New Coccine. Preferred compns. contain both stabilizer and dye. The dye makes the solution more easily visible during manipulation.

L13 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:542488 CAPLUS

DN 127:206935

OREF 127:40206a,40208a

TI Benzophenoxazine dyes for labeling of biomolecules

IN Simmonds, Adrian; Miller, James N.; Moody, Christopher John; Swann, Elizabeth; Briggs, Mark Samuel Jonathan; Bruce, Ian Edward

PA Amersham International PLC, UK

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DT Patent

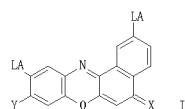
LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9729154	A1	19970814	WO 1997-GB324	19970206
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RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
EP 885263	A1	19981223	EP 1997-902477	19970205
EP 885263	B1	20010425		
R: CH, DE, DK, FR, GB, IT, LI, NL, SE				
JP 20000504755	T	20000418	JP 1997-528276	19970205
AU 9716115	A	19970828	AU 1997-16115	19970206
US 6166202	A	20001226	US 1999-117608	19990115
PRAI GB 1996-2265	A	19960205		
WO 1997-GB324	W	19970205		

OS MARPAT 127:206935

GI



AB Benzophenoxazine compds. having formula I (X = O, NH, N-alkyl, N-aryl, N-alkenyl; Y = H, NR1R2; R1, R2 = C1-12 alkyl, aryl, alkenyl, LA: L = C0-20 linker which may contain O, N, S; A = amino, amide, CN, hydroxy, thiol, carboxy, sulfonate, phosphate, a reactive group by means of which the compound can be linked to a biomol.) are synthesized. The compds. are used as fluorescent dyes for labeling biomols.

L13 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:271618 CAPLUS

DN 126:252406

OREF 126:48777a,48780a

TI Synthesis of functionalized fluorescent dyes and their coupling

to amines and amino acids

Briggs, Mark S. J.; Bruce, Ian; Miller, James N.; Moody, Christopher J.; Simmonds, Adrian C.; Swann, Elizabeth

Amersham Lab., Amersham International PLC, Buckinghamshire, HP7 9LL, UK

Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1997), (7), 1051-1058

CODEN: JCPRB4; ISSN: 0300-922X

Royal Society of Chemistry

Journal

English

CASREACT 126:252406

AB A series of novel functionalized benzophenoxazinones, analogs of Nile Red, is prepared and their fluorescence properties evaluated. The ring system is prepared by reaction of 5-diethylamino-2-nitrosophenol with 1,6-dihydroxynaphthalene followed by alkylation of the 2-hydroxy group with 6-bromohexanoic acid derivs. Subsequent ester cleavage under a variety of conditions gives the acid. Replacement of the 9-diethylamino group with the N-ethyl-(3-sulfonylpropyl)amino group is carried out to increase water solubility and the resulting dye has similar fluorescence properties. The acid is coupled to a range of amino compds.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:239250 CAPLUS

DN 120:239250

OREF 120:42245a,42248a

TI Stabilizers for radiolabeled compound formulations

IN Price, Roger Malcolm; May, Christopher Charles; Buckley, Elizabeth Margaret; Stone, Timothy

Amersham International PLC, UK

SO PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9322260	A1	19931111	WO 1993-GB869	19930427
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2105402	A1	19931031	CA 1993-2105402	19930427
CA 2105402	C	20000404		
AU 9342665	A	19931129	AU 1993-42665	19930427
AU 655548	B2	19941222		
JP 06502729	T	19940324	JP 1993-51518	19930427
JP 3117719	B2	20001218		
EP 594837	A1	19940604	EP 1993-911868	19930427
EP 594837	B1	19960110		
EP 594837	B2	19991206		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 132842	T	19960115	AT 1993-911868	19930427
ES 2081717	T3	19960301	ES 1993-911868	19930427
US 5494654	A	19960227	US 1993-107733	19930823
PRAI EP 1992-303905	A	19920430		
WO 1993-GB869	A	19930427		

OS MARPAT 120:239250

AB Stabilizing additives are proposed for compns. containing radiolabeled organic compds. e.g. 32P-labeled nucleotides or radiolabeled amino acids. The stabilizers are selected from tryptophan, para-aminobenzoate, indoleacetate and azole compds. Preferred compns. contain both stabilizer and dye (Sulforhodamine B, Xylene Cyanol, Azocarmine B, New Coccine). The effect of the stabilizers on tritiated phenylalanine, 32P-labeled dCTP, and other radiolabeled compds. was determined

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FILE 'REGISTRY' ENTERED AT 13:38:47 ON 07 JUL 2008

L1 STRUCTURE UPLOADED
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L2 26 SEA SSS SAM L1

L3 515 SEA SSS FUL L1

FILE 'CAPLUS' ENTERED AT 13:41:00 ON 07 JUL 2008

L4 231 SEA ABB=ON PLU=ON L3

L5 55 SEA ABB=ON PLU=ON L4 AND PY<2003

 D QUE L5 STAT

 D 1-55 BIB ABS HITSTR

L6 100 SEA ABB=ON PLU=ON L4 AND PY<2005

 D 1-100 BIB ABS HITSTR

 E WILLIAMS KAREN/AU

L7 34 SEA ABB=ON PLU=ON "WILLIAMS KAREN"/AU

 E STONE TIMOTHY/AU

L8 15 SEA ABB=ON PLU=ON ("STONE TIM"/AU OR "STONE TIMOTHY"/AU OR
 "STONE TIMOTHY J"/AU)

 E SIMMONDS ADRIAN/AU

L9 18 SEA ABB=ON PLU=ON ("SIMMONDS ADRIAN"/AU OR "SIMMONDS ADRIAN
 C"/AU OR "SIMMONDS ADRIAN CHRISTOPHER"/AU)

 E SWEET ALISON/AU

L10 5 SEA ABB=ON PLU=ON ("SWEET ALISON"/AU OR "SWEET ALISON
 CLAIRE"/AU)

 E FOWLER SUSAN/AU

L11 20 SEA ABB=ON PLU=ON "FOWLER SUSAN"/AU OR "FOWLER SUSAN I"/AU

FILE CAPLUS

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FILE COVERS 1907 - 7 Jul 2008 VOL 149 ISS 2
FILE LAST UPDATED: 6 Jul 2008 (20080706/ED)

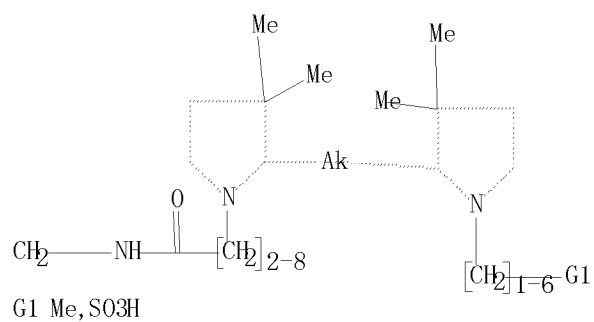
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